

AN
ESSAY
Mary OF *Falkner*
HEALTH
AND
LONGLIFE.

By GEORGE CHEYNE, M. D. F. R. S.

The FOURTH EDITION.

Ἀσκήσεις Ὑγιεινῆς, ἀπορρῆν Τροφῆς, ἀσκήσιν Πόνων.

Hippocr

At Imbecillis (quo in numero magna Pars Urbanorum, omnesque pene Cupidi Literarum sunt) Observatio major necessaria est: ut quod vel corporis, vel Loci, vel Studii Ratio detrahit, Cura restituat.
Cels.



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S

TO THE
Right Honourable
Sir JOSEPH JEKYLL,
Master of the *ROLLS*.

This TREATISE

is inscribed

As a Testimony of Respect,
and Gratitude,

BY

His most obliged
faithful humble Servant,

GEORGE CHEYNE.

TO THE

Right Honourable

Sir Joseph



Member of the Rolls

The Admiralty

is intended

As a preliminary of Ref.

The full and complete

Dr. W. H. R. R. R.

The most obliging

Admiral's humble

George



THE P R E F A C E.



HIS being probably the last Time I may trespass on the Publick, I look upon my self in some Measure obliged to settle my Accounts with the World as an Author, before I make my *Exit*, by endeavouring to shew I have not always offended out of Presumption, Vanity, or Wantonness.

The first time I adventured in Print, was on the Account of my great Master and generous Friend, Dr. *Pitcairn*. He thought himself ill-used by some of his Brethren of the Profession who then were at intestine War on the Subject of Fevers; and fancied the handsomest Way to bring them down, was to exhibit a more specious Account of this Disease, than any of them had shewn. His Business then in the Practice of Physick was so great, as not to allow him sufficient Time for such a Work. Two others therefore, with my self, were joine d to manage the Affair: In which he was to cut and carve, and to add the practical Part. My Province

Province was the Theory. I was then very young in the Profession, and living in the Country. But in a few Days I brought in my Part finished, as it now appears, under the Title of *The New Theory of Fevers*. The others either suppress'd or forgot theirs, and mine, without the least Alteration, but in a few Words, was ordered for the Press. I could not resist the Commands of my Friend; but would not suffer my Name to be put to it, being conscious it was a raw and unexperienced Performance. There are tho' some Things in it which may be of Use to Beginners, both as to the Method of philosophising on the animal Oeconomy, and in the Account of the Manner of the Operation of the greater Medicines. The Foundations also and the Causes assigned for acute and slow Fevers, I still think solid and just, and more particular and limited than those of any other Theory yet published. But it wants so much filing and finishing, so many Alterations and Additions as would cost me more Labour and Pains than the writing a new Treatise on the same Subject: So that out of mere Laziness and Inappetency, I have thrown it by as unripe Fruit, and suffered it to be as if it never had been.

My next Sally was in a Book of abstracted Geometry and Algebra, entitled, *Methodus Fluxionum Inversa*, brought forth in Ambition and bred up in Vanity. There are some things in it tolerable for the Time, when the Methods of Quadratures, the Mensuration of Ratio's, and Transformation of Curves, into those of other Kinds, were not advanced to such Heights as they now are. But it is a long Time since I was forced to forgoe these barren and airy Studies for more substantial and commodious Speculations: Indulging and rioting in these so exquisitely bewitching Contemplations, being only proper

per for publick Professors, and those born to Estates, and who are under no outward Necessities. Besides, to own a great but grievous Truth, tho' they may quicken and sharpen the Invention, strengthen and extend the Imagination, improve and refine the reasoning Faculty, and are of Use both in the necessary and the luxurious Refinement of mechanical Arts; yet having no Tendency to rectify the Will, sweeten the Temper, or mend the Heart, they often leave a Stiffness, Positiveness, and Sufficiency on weak Minds, much more pernicious to Society, and the Interests of the great End of our Being, than all the Advantages they bring them can recompence. They are indeed Edge-Tools, not to be trusted in the Hands of any, but those who have already acquired an humble Heart, a lowly Spirit, and a sober and teachable Temper. For in others they are apt to beget a secret and refined Pride, an over-weening and over-bearing Vanity (the most opposite Temper to the true Gospel-Spirit, which, without Offence, I may suppose to be the best Disposition of Mind) that tempts them to presume on a Kind of Omniscience in Respect of their Fellow-Creatures, that have not risen to their Elevation; and to set up for an Infalibility, or at least a decisive Judgment, even in Matters which do not admit of a *more* or *less* (their proper Object) of which Kind whatever relates to the infinite Author of our Being most certainly is. Upon all which Accounts, conscious of my own Weakness, I have long since bid them an Adieu, farther than as they serve to amuse, or are useful in the absolute Necessities of Life.

The Defence of that Book against the learned and acute Mr. *Abr. de Moivre*, being written in a Spirit of Levity and Resentment, I most sincerely

ly retract, and wish undone, so far as it is personal or peevish, and ask him and the World Pardon for it; as I do for the *Defence* of Dr. *Pitcairn's Dissertations*, and the *New Theory of Fevers*, against the late learned and ingenious Dr. *Oliphant*, I heartily condemn and detest all personal Reflexions, all malicious and unmannerly Terms, and all false and unjust Representations, as unbecoming Gentlemen, Scholars, and Christians; and disprove and undo both Performances, as far as in me lies, in every thing that does not strictly and barely relate to the Argument.

The first Part of the *Philosophical Principles*, that of *Natural Religion*, consists merely of Discourses and Lectures of *Natural Philosophy*, and of its Consequences on *Religion*, occasionally read or discoursed to that most noble and great Person, the Duke of *Roxburgh*, who is now so great an Ornament to his Country, and his high Employments, to whom they were inscribed. I thought they might be of Use to other young Gentlemen, who, while they were learning the Elements of natural Philosophy, might have thereby the Principles of natural Religion insensibly instilled into them. And accordingly it has been and is still used for that Purpose at both Universities. Upon which Account, upon proper Occasions, I will not fail to improve it in all the new Discoveries in Experimental Philosophy, or in the final and natural Causes of Things as happen to be made, so as leave it as little imperfect in its Kind as I possibly can.

The second Part of the *Philosophical Principles*, to wit, that of *Revealed Religion*, was added afterward, to shew, that all our Knowledge of Nature was by Analogy, or the Relations of Things

Things only, and not their real Nature, Substance, or internal Principles : That from this Method of Analogy, (the only Medium of human Knowledge) we should be necessarily led, to conclude the Attributes or Qualities of the supreme and absolute infinite, were indeed analogous to Properties or Qualities of finite Beings, but only in such a Manner as the Difference between Infinite and Finite requires ; and that therefore, not being able to know precisely these Differences, we ought implicitly to believe without reasoning what is revealed to us concerning the Nature of the infinite Being ; or bring our Reason to submit to the Mysteries of Faith. How I have succeeded is not for me to determine. As the End was honest, I am secure the great Principles and the fundamental Propositions are true and just. They may want a little farther clearing up and Explication : But as yet I have met with no Reason to retract any thing material ; else I should most certainly do it.

The *Essay on the Gout and Bath Waters* was brought forth by mere Accident. The first Draught being, as I there mentioned, only a Paper of Directions for a Gentleman, my Friend and Patient, troubled with the Gout. It was enlarged upon different Occasions, and published to prevent its being pyrated ; several Copies having been given out to others in the same Circumstances. I have the Satisfaction to know from many different Hands, that it has benefited great Numbers of infirm and afflicted Persons ; and shall therefore go on to cultivate it as far as my poor Abilities will permit.

I am now come to this my last Production ; whose Origin was as casual as that of my former. My good and worthy Friend, the present Master

of the *Rolls*, having been last Autumn at *Bath*, for a Confirmation of his Health, at his Departure desired of me to draw up some Instructions in writing to direct him in the Conduct of his Health for the future, and in the manner of supporting his Spirits free and full, under the great Business he is engag'd in. I was then in the hurry of our Season, and could not so soon answer his Expectation, as his real Worth, and my sincere Esteem required. I thought my self therefore the more obliged as soon as I had Leisure, to exert my self to the uttermost in Obedience to his Commands. At first I drew up most of these Rules at the end of the several Chapters; but, upon Reflexion, thought it not Respect enough to his good Taste and Capacity to judge of the Reasons of Things, to prescribe him bare and dry Directions in Matters of so great Moment. I added therefore the philosophical Account and Reasons of these Rules, which make up the Bulk of the Chapters themselves. He, out of his Love to his Fellow-Citizens (which is one shining Part of his Character, and which I ought to suppose has in this Instance only imposed on his better Judgment) desired they might be made publick. Upon which Account several Things have been since added, to make the whole of more general Use. If therefore any thing in this Treatise be tolerable, or if any Person receive Benefit by it, they owe it entirely to that excellent Person, upon whose Account solely it was undertaken, and at whose Request it is published.

I have indeed long and often observed, with great Pity and Regret, many very learned, ingenious, and even religious Persons, who being weak and tender (as such generally are) have suffered to the last Extremity for want of a due Regimen

gimen of Diet, and other general Directions of Health, who had good Sense enough to understand the Force and Necessity of such Rules, valued Health sufficiently, and despised sensual Gratifications for the Pleasures of the Mind so far, as to be able and willing to abstain from every thing hurtful, deny themselves any thing their Appetites craved, and to conform to any Rules for a tolerable Degree of Health, Ease, and Freedom of Spirits; and yet being ignorant how to conduct themselves, from what to abstain and what to use, they have suffered even to mortal Agonies; who, had they been better directed and instructed, had pass'd their Lives in tolerable Ease and Quiet. It is for these, and these only, the following Treatise is designed. The Robust, the Luxurious, the Pot-Companions, the Loose, and the Abandoned, have here no Business; their time is not yet come. But the Sickly and the Aged, the Studious and the Sedentary, persons of weak Nerves, and the Gentlemen of the learned Professions, I hope, by the divine Blessing on the following Treatise, may be enabled to follow their Studies and Professions with greater Security and Application, and yet preserve their Health and Freedom of Spirits more entire and to a longer Date. I am morally certain, had I known and been as well satisfied of the Necessity of the Rules here laid down, thirty Years ago, as I am now, I had suffered less, and had had a greater Freedom of Spirits than I have enjoy'd. But every thing is best as it has been, except the Errors and Failings of our free Wills.

I know no useful Means of Health and long Life I have omitted, nor any pernicious Custom I have not noted; and have given the plainest and

most familiar Reasons I could urge for the Rules I have here laid down. Most of my Arguments (as they needs must) have risen out of the animal Functions and Oeconomy: And I have used as little Subtility and Refinement in my Explications of these, as the present State of Natural Philosophy could admit. I have been often contented with plain and obvious Facts to account for Appearances, and the Cautions thence deduced; when, according to the Humour of the present Age, I might have run into refined Speculations of Metaphysicks, or Mathematicks; being contented with the *Crasso Modo philosophari*; because we shall never be able to search out the Works of the Almighty to perfection, so as to penetrate the internal Nature of things.

I have consulted nothing but my own Experience and Observation on my own crazy Carcase and the Infirmities of others I have treated, in the following Rules, their Reasons and Philosophy, (so that if any thing is borrowed, it has occurred to me as my own) but in so far as Authorities go to shorten philosophical Accounts. Not but that all systematick Writers in Physick, and many particular Authors, have treated of the same Subject: But their Rules, besides that they are often inconsistent with Reason, or contrary to Experience, are so general, and express'd in so unlimited and undefined Terms, as leave little or no Certainty in them; when apply'd to particular Cases, they want the necessary Precision and Exactness, and so become useless or perplexing: and lastly, when they come, (which is rarely to be found among them) to give the Reasons and Philosophy of their Directions, they have not the Perspicuity and natural Way of convincing the ingeni-

ingenious, sickly, and tender Sufferers, so necessary to make them chearfully and readily undergo such severe Restraints ; which I take to be by far the most difficult Part of such a Work, and which I have laboured with my utmost Power to supply.

I know not what may be the Fate and Success of this Performance ; nor am I solicitous about it, being conscious the Design was honest, the Subject weighty, and the Execution the best my Time, my Abilities, and my Health would permit, which cannot bear the Labour of much filing and finishing. Being careful not to incroach on the Province of the Physician, I have conceal'd nothing my Knowledge could suggest to direct the Sufferer, in the best manner I could, to preserve his Health and lengthen out his Life : And I have held out no false or delusory Lights to lead him astray, or torment him unnecessarily.

If it were possible any Set of Men could be offended at my Performance, it might be my Brethren of the Profession, for endeavouring to lessen the *Materia Morbifica*. But as this would be the most malicious, unjust, and unworthy Reflexion could be thrown on Scholars and Gentlemen of a liberal Education ; so I never entertained the most remote Vanity to think any Endeavour of mine would make so considerable a Change in the Nation ; especially when the Devil, the World, and the Flesh were on the other side of the Question, which have stood their Ground even against the Rules of Life and Immortality brought to Light by the Gospel.

I cannot conclude this tedious Preface without begging pardon of the Reader for troubling him
with

with my private Matters. All I can say as an Apology is, that of whatsoever Indifference my Concerns as an Author may be to him, yet they were not so to me; this being the only Place and Time I may have to adjust them in, and it being the Heighth of my Ambition,

Nil conscire mihi, nullâ pallefcere culpâ.



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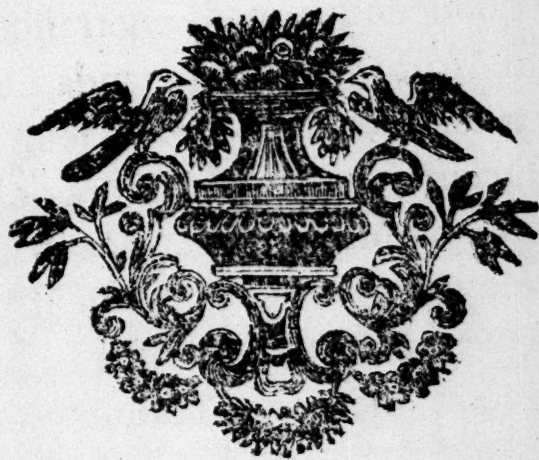
*In Clarissimi Medici GEO. CHEYNÆI
Tentamen de Sanitate & Longævitate,
doctum variumque Opus miratus, hæc
effudit ** Virtutum illius Viri Cultor
impensissimus.*

HUC ades, o! sævum Membris arcere Venenum
Qui cupis, & Morbi femina tetra gravis.
Sive tremens pavidusque vides instare minacem
Scorbutum (ut videas hic Liber, ecce! docet)
Sive parant atras Hypochondria turgida Nubes,
Quæ Menti offusæ tristia spectra darent;
Seu Monstri quodcunque imis Penetralibus hæret,
Principium Morbi, mox generanda Lues:
Ecce Opifer præsens, CHEYNÆUS, lenit acerbum
In Venis succum, nec tibi Membra dolent;
Aut pellit tristis simulacra fugacia spectri,
Atque Animo prohibet Gaudia abesse tuo;
Maturâque Operâ prævertens tristia Fata
Ægrotare vetat, nec doluisse finit.

Perlege (at attentus) culti Documenta Libelli,
Si Te vel sanum vel cupis esse probum:
(Arctè etenim sociata Salus fideliter hæret
Virtuti, Vitio nec Comes esse volet.)

Disce

Disce Voluptates prudens vitare nocentes;
Hinc disce & veris innocuisque frui.
Ut Tibi sit Somnus Lenimen dulce Laborum,
Quæque onerant Menfas dulcia Fercla fient;
Ut vigeant Artus, nec faucia membra laborent;
Hic Gulæ effrænis Crimina mille lege.
Chirurgi Ferrum Te, & tetrica Pharmaca terrent?
Hinc disce ambobus posse carere Malis.

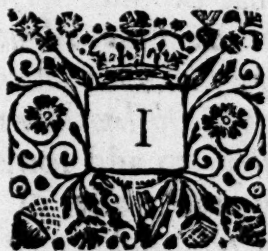






A N
E S S A Y
O F
Health and Long Life.

§. I.



It is a common Saying, That every Man past Forty is either a *Fool* or a *Physician*: It might have been as justly added, that he was a *Divine* too: For, as the World goes at present, there is not any Thing that the Generality of the better Sort of Mankind so lavishly and so unconcernedly throw away as *Health*, except *eternal Felicity*. Most Men know when they are ill, but very few when they are well. And yet it is most certain, that 'tis easier to *Preserve* Health than to *recover* it, and to *prevent* Diseases than to *cure* them. Towards the first, the Means are mostly in our own Power: Little else is required than to *bear and forbear*. But towards the latter, the Means are perplexed and uncertain; and for the Knowledge of them the far greatest Part of Mankind must apply to others, of whose Skill and Honesty they are in a great measure ignorant, and the Benefit of whose Art they can but conditionally and precariously obtain. A crazy Constitution, original wake Nerves, dear-bought Experience in Things helpful and hurtful, and long Observation on the Complaints of others, who came for Relief to this universal Infirmary, *BATH*, have at last (in some measure) taught me some of the most effectual Means of preserving Health

A

and

and prolonging Life in those who are *tender* and *sickly*, and labour under *chronical* Distempers. And I thought I could not spend my leisure Hours better than by putting together the most general Rules for that Purpose, and setting them in the clearest and strongest Light I could, for the Benefit of those who may want them, and yet have not had such favourable Opportunities to learn them.

§. 2. And that I might write with some Order and Connexion, I have chosen to make some Observations and Reflections on the *Non-naturals* (as they are called, possibly because that in their preternatural State they are eminently injurious to human *Constitutions*; or more *probably*, because tho' they be necessary to the Subsistence of *Man*, yet in respect of *him*, they may be considered as *external*, or different from the *internal* Causes that produce *Diseases*) to wit, 1. The *Air* we breath in. 2. Our *Meat* and *Drink*. 3. Our *Sleep* and *Watching*. 4. Our *Exercise* and *Rest*. 5. Our *Evacuations* and their *Obstructions*. 6. The *Passions* of our Minds: And *lastly*, to add some Observations that come not so naturally under any of these Heads. I shall not consider here how *philosophically* these *Distinctions* are made; they seem to me, the best general *Heads* for bringing in those *Observations* and *Reflections* I am to make in the following Pages.

§. 3. The Reflection is not more common than just, That he who lives *physically* must live miserably. The Truth is, too great Nicety and Exactness about every minute Circumstance that may impair our Health, is such a Yoke and Slavery, as no Man of a generous free Spirit would submit to. 'Tis, as a *Poet* expresses it, *to die for fear of Dying*. And to forbear or give over a just, charitable, or even generous Office of Life, from a too scrupulous Regard to Health, is unworthy of a *Man*, much more of a *Christian*. But then, on the other Hand, to cut off our Days by *Intemperance*, *Indiscretion*, and guilty *Passions*, to live miserably for the sake of gratifying a *sweet Tooth*, or a brutal *Itch*; to die *Martyrs* to our *Luxury* and *Wantonness*, is equally beneath the Dignity of *human Nature*,



Nature, and contrary to the *Homage* we owe to the *Author* of our Being. Without some Degree of *Health*, we can neither be agreeable to *ourselves*, nor useful to our *Friends*; we can neither relish the Blessings of *divine Providence* to us in *Life*, nor acquit ourselves of our *Duties* to our *Maker*, or our *Neighbour*. He that *wantonly* transgresseth the *self evident* Rules of *Health*, is guilty of a Degree of *Self-Murder*; and an *habitual* Perseverance therein is direct * *Suicide*, and consequently, * *Self-Murder*. the greatest Crime he can commit against the *Author* of his being; as it is slighting and despising the noblest *Gift* he could bestow upon him, *viz.* the *Means* of making himself infinitely *happy*; and also as it is a *treacherous* forsaking the *Post*, wherein his *Wisdom* has placed him, and thereby rendering himself incapable of answering the *Designs* of his *Providence* over him. The infinitely wise *Author* of *Nature* has so contrived *Things*, that the most remarkable RULES of preserving LIFE and HEALTH are *moral Duties* commanded us, so true it is, that *Godliness* has the *Promises* of this *Life*, as well as that to come.

To avoid all useless Refinement, I will lay down only a few plain easily observed Rules, which a Man may readily follow, without any Trouble or Constraint.



CHAP. I.

Of AIR.

§. 1. **A**IR being one of the most necessary Things towards the *Subsistence* and *Health* of all *Animals*; 'tis a Wonder to me, that here in *England*, where *Luxury* and all the Arts of *living well*, are cultivated even to a *Vice*, the Choice of Air should be so little considered:

§. 2. From Observations on Bleeding in *Rheumatisms*, and after catching Cold, 'tis evident, that the *Air* with its different *Qualities*, can alter and quite vitiate the whole *Texture*

ture of the Blood and animal Juices: From the *Palsies, Vertigoes, Vapours*, and other nervous Affections, caused by *Damps, Mines*, and working on some *Minerals*, († particularly *Mercury* and *Antimony*) 'tis plain *Air* so and so qualified, can relax and obstruct the whole nervous System. From the *Cholics, Fluxes, Coughs*, and *Consumptions*, produced by *Damp*, moist and nitrous *Air*, 'tis manifest, that it can obstruct and spoil the noble *Organs*. The *Air* is attracted and received into our *Habit*, and mixed with our *Fluids* every Instant of our *Lives*; so that any ill *Quality* in the *Air* so continually introduced, must in Time produce fatal Effects on the animal Oeconomy: And therefore it will be of the utmost Consequence to every one, to take Care what kind of *Air* it is they sleep and watch, breath and live in, and are perpetually receiving into the most intimate Union with the *Principles* of Life. I shall only take Notice of three Conditions of *Air*.

§. 3. The first is, That when gentlemen build *Seats*, they ought never to place them upon any high *Hill*, very near any great *Confluence* of *Water*, in the Neighbourhood of any great *Mines*, or Beds of *Minerals*, nor any swamp, marshy, or mossy Foundation; but either in a *champaign* Countrey, or on the Side of a small Eminence, sheltered from the *North* and *East* Winds, or upon a light gravelly Soil. The Nature of the Soil will be well known from the *Planets* and *Herbs* that grow on it, or rather more securely from the Nature of the *Waters* that spring out of it, which ought always to be *sweet, clear, light, soft*, and *tasteless*. All high *Mountains* are damp, as Dr. *Halley* observed at *St. Helena*, a mountainous Place, where *Damps* fell so perpetually in the Night time, that he was obliged to be every Moment wiping his *Glasses*, in making his *Astronomical* Observations. And where the *Mountains* are high, the Inhabitants of them are forced to send their *Furniture*, in Winter, to the *Valley*, lest it should rot. And 'tis common to have it rain or snow on *Mountains*, when the *Valleys* below are clear, serene and dry. All great *Hills* are Nests of *Minerals*, and Covers (made of the

the prominent Earth) for *Reservoirs of Rain Water*. The Clouds are but great *Fleeces* of rarified Water sailing in the Air, sometimes not many Yards above the *champaign* Countrey; and these high *Hills* intercepting them, they are compressed into *Dew* or *Rain*, and are perpetually drilling down the *Crannies* of the Mountains into these *Basins*. Hence the *Origin of Rivers, and fresh Water Springs*. Besides that, these mountainous Places, are always expos'd to high, and almost perpetual *Winds*. Where any great *Concourse* of Water is, the Air, must needs be perpetually damp, because the *Sun* is perpetually straining from these *Waters*, moist *Dews* and *Vapours* thro' it. All great *Nelts* of *Minerals*, or large *Mines*, must necessarily impregnate the Air, with their respective Qualities. And mossy Blackness, is some Degree of *Putrefaction*, as * Sir Isaac Newton observes.

*See his Treatise
about Light and
Colours.

§. 4. Secondly, the *Winds* that are most frequent, and most pernicious in *England*, are the *Easterly*, especially the *North East* Winds, which in the *Winter* are the most piercing cold, in *Summer* the most parching hot. In *Winter* they bring along with them, all the *Nitre* of the *Northern* and *Scythian* *Snows*, *Mountains of Ice*, and *frozen Seas* thro' which they come; and in *Summer*, blow with all the fiery Particles of the perpetual Day they pass thro'. From the end of *January*, till towards the end of *May*, the Wind blows almost perpetually, from the *Eastern* and *Northern* Points, if the *Spring* is dry; and from the *Southern* and *Western* Points, if the *Spring* is wet, (and generally from the setting in of the *Winds*, on a *New-Moon*, you may predict the Weather of the *Spring*) and our *Bodies* most certainly attracting, the circumambient Air, and the *Fumes* of those Bodies that are next to us, it will be very convenient for *valetudinary*, *studious*, and *contemplative* Persons, in a dry Spring, or in *Easterly* *Winds*, to change their *Bed-chambers* into Rooms that have *Western* or *Southern* Lights, or to shut close up the *Eastern* and *Northern* Lights, or to have them but seldom opened; and in *wet* Seasons, to take the contrary Course.

And

And if any *such* Person, has been much expos'd, or long abroad in a *Northerly* or *bleakish Easterly* Wind, it will be very proper for him to drink down, going to Bed, a large Draught of warm Water-gruel, or of warm small *Mountain-wine* Whey, as an *Antidote* against the *nitrous Effluvia*, suck'd into the Body, and to open the *Obstructions* of the *Perspiration* made thereby.

§. 5. *Thirdly*, from the beginning of *November* till towards the beginning of *February*, *London* is cover'd over with one universal *nitrous* and *sulphurous* Smoak, from the Multitude of Coal Fires, the Absence of that *material Divinity* the *Sun*, and the Consequence thereof, the falling of the *Dews*, and *Vapours* of the *Night*. In such a *Season*, *weak* and *tender* People, and those that are subject to *nervous* or *pulmonick* Distempers, ought either to go into the *Country*, or to be at *home* soon after *Sun-set*, and to dispel the *Damps* with clear, warm Fires, and chearful Conversation, go early to Bed, and rise proportionally sooner in the Morning; for, as the *Sun's* Removal suffers the *Vapours* to fall and condense, in the *Evening*, so his Approach dispels and raises them in the *Morning*. I need not add, that it will be very fit, for those that are *valetudinary*, to have their Servants, Children, Bed-fellows, and all those that approach them, with whom they live constantly, and mix *Atmospheres*, to be as healthy, sound and sweet as possibly they can; and, for their *own sakes*, to have them remov'd till they are made so, if they are otherwise. Nor shall I add any pressing instances, to avoid *wet* Rooms, *damp* Beds, and *foul* Linnen, or to remove *Ordure* and *Nuisances*; the *Luxury* of *England* having run all these rather into a *Vice*.

§. 6. The *Air* is a *Fluid*, wherein Parts of all Kinds of Bodies swim as in *Water*. But *Air* differs from *Water* in this, that the *first* is compressible into a lesser compass, and smaller *Volume*, like a *Fleece* of *Wool*, either by its own *Weight*, or any other *Force*, which *Weight* or *Force* being removed, the *Air* immediately recovers its former Bulk and Dimensions again, whereas no *Force* whatever can bring *Water* into narrower Bounds; that is, *Air* is extremely *elastick* and *springy*, but
Water

Water is not at all so. Yet the Parts of *Air* would seem to be grosser than the Parts of *Water*: For *Water* will get through a *Bladder*, and may be forced through the *Pores* of *Gold*; but *Air* will pass through neither. By this its *elastick Force*, the *Air* insinuates itself into the patent *Cavities* of all *animal Bodies*; and the *Infant*, which never breathed before, as soon as it is exposed to this *Element*, has the little *Bladders*, whereof the *Lungs* consist, blown up into a *perpendicular Erection* on the *Branches* of the *Wind-pipe*; whereby the *Obstruction*, from the *Pressure* of these *Vesicles* (arising from their being compressed together, and lying upon one another) being in some *Measure* taken off, the *muscular Action* of the right *Ventricle* of the *Heart* is able to force the *Blood* through the *Lungs* into the left *Ventricle*. But these little *Bladders*, being thus *inflated* by an *elastick Fluid*, still press so far upon, and grind the grosser *Particles* of the *Blood* into more *sizeable ones*, that they may become small enough to *circulate* through the other *capillary Vessels* of the *Body*. This *elastick Air*, pressing equally every *Way* round, by its *Weight* and *Spring*, shuts close the *Scales* of the *Scarf-skin* of healthy and strong *Persons*; so that it denies all *Entrance* to the *nitrous* and *watry Mixture*, contained in it, and thus becomes a *Kind of Cold Bath*, to them, and defends them from catching *Cold*: But in *sickly*, *studious*, and *sedentary People*, and those of weak *Nerves*, where the *Spring* of the *Coverlets* and *Scales*, that defend the *Mouths* of the *perspiratory Ducts* is weak, the *Perspiration* little or next to none at all, and the *Blood* poor and *sizey*; the *nitrous* and *watry Particles* of the *Air* get a ready and free *Entrance*, by these *Ducts* into the *Blood*, and by breaking the *Globules* thereof, *coagulating* and fixing its *Fluidity*, quite stop the *Perspiration*, and obstruct all the *capillary Vessels*, the *cutaneous Glands*, and those of the *Lungs* and *alimentary Passages*, when such *Bodies* are long exposed to such an *Air*: And thus begets all these Disorders in the *Body*, that *Air* thus and thus *poison'd*, was shewn capable to produce. So long as the *Perspiration* is *strong, brisk, and full*, 'tis impossible any of these Disorders should happen; because the *Force* of the *perspiratory Steams* outward, is greater than the *Force* whereby these *noxious Mixtures* enter; unless the *Body* be indiscreetly too long exposed,

exposed, or the Action of the *nitrous* and *watry Mixtures* be extremely violent. Hence it comes to pass, that those who are very *strong* and *healthy*; and those who have *drank strong Liquors* so plentifully, as to have thereby a brisk *Circulation* and full *Perspiration*, seldom or never catch *Cold*. And this is the Reason why *rich Foods* and *generous Wines*, moderately used, become so excellent an *Antidote* in *infectious* and *epidemick* Distempers; not only as they banish *Fear* and *Terror*, but as they make so full and free a *Stream of Perspiration*, and maintain so active and brisk an *Atmosphere*, as suffers no *noxious Steams* or *Mixtures* in the *Air* to come within it; but drives and beats off the Enemy to a Distance. But Persons of *viscous*, *heavy Fluids*, of *poor* and *sizy Juices*, of little or no *Perspiration*, such as generally all *studious*, *sedentary*, and *sickly* Persons are, but especially those that are subject to *nervous* Disorders, must necessarily suffer under these *poisonous Mixtures* in the *Air*, if they do not cautiously and carefully fence against them, or take not a present Remedy and *Antidote*, when *tainted*. For besides the *Air* that gets through the *perspiratory Ducts* into the Blood, whenever we Eat, Drink, or Breathe, we are taking into our Bodies, such *Air* as is about us. And when the *concoctive Powers* are *weak*, as in such Persons, and the *Quantity* of the Food is too great, or its *Quality* too strong for them, the *Chyle* is too gross, and the *perspiratory Matter* is stopped, because too large for these small *Ducts*; and this whole *Mass*, which in *common Health* is more than double of the gross *Evacuations*, recoils in upon the *Bowels*, and becomes, as it were, *Spears*, and *Darts*, and *Armour* to the *Air* receiv'd from without; which being thus *sharpened* with the *Salts* of the *unconcocted Food*, together with its own *elastick Force*, pierces the Sides of the *Vessels*, and gets into all the *Cavities* of the Body, and between the *Muscles* and their *Membrances*, and there, in Time, brings forth *hypochondrick*, *hysterick*, *nervous*, and *vapourish* Disorders, and all that *black Train* of *Evils* such Constitutions suffer under.

I shall now draw out the *Cautions* here inculcated into a few general Rules.

General

*General Rules for Health and Long Life,
drawn from the Head.*

Of A I R.

1. **T**HE healthiest Situation for a *Seat* is in a *champaign* Country, or on the *Side* of a small Eminence, on a *gravelly* Soil, with a *Southern* or *Western* Exposition, sheltered from the *North* and *East* Winds, distant from any great *Concourse* of Waters, or any great *Mines* or Beds of *Minerals*, where the Water is *sweet, clear, light, soft,* and *tastless*.

2. *Tender* People on the setting in of *Easterly* and *Northerly* Winds, ought to change their *Bed-Rooms* for others of *Westerly* and *Southerly* Lights, and the contrary in wet Seasons.

3. Those who have been much exposed to, or long abroad in *Easterly* or *Northerly* Winds, should drink some thin and warm Liquor going to Bed.

4. When the dark, dull, foggy Weather lasts at *London* in Winter, tender People, and those of weak *Nerves* and *Lungs*, ought either to go into the *Country*, or keep much at Home in warm Rooms, go early to Bed, and rise betimes.

5. *Valetudinary* People ought to have their *Servants*, *Children*, and *Bedfellows*, or those they continually approach and converse with, sound, sweet, and healthy, or ought to remove them 'till they are so, if they are otherwise.

6. *Every* one, in order to preserve their Health, ought to observe all the *Cleanness* and *Sweetness* in their Houses, Cloaths, and Furniture, suitable to their Condition.



C H A P. II.

Of MEAT and DRINK.

§. 1. **T**O have our Food, that is, our Meat and Drink, as to *Quantity* and *Quality* duly regulated, and precisely adjusted to our *concoctive Powers*, would be of the utmost Consequence to *Health* and *Long Life*. Our Bodies require only a *determinate Quantity* thereof, to supply the *Expences* of living: and a just Proportion of that to these would very probably preserve us from *acute*, most certainly from *chronical* Distempers, and enable us to live, without much Sicknes and Pain, so long as our Constitutions were originally made to *last*. The Sources of *chronical* Distempers are *first* Viscidity in the Juices, or the Overlargeness of their constituent *Particles*, which not being sufficiently broken, by the *concoctive Powers*, stop or retard the *Circulation*; or, *secondly*, too great abundance of sharp and acrimonious *Salts*, whereby the Juices themselves are rendred so *corrosive*, as to brust or wear out the Solids; or, *thirdly*, a *Relaxation*, or Want of a due Force and Springiness in the Solids themselves. An Excess in *Quantity* begets the *first*, the *ill Condition* of our Meat and Drink the *second*, and *both* together, with Want of due Labour, the *third*.

§. 2. The Meat of *England* is generally *animal* Substances. The *Animals* themselves, from *epidemick* Causes, bad Food, Age, or other Infirmities, have their Diseases as well as *human* Creatures: and these diseased *Animals* can never be proper or sound Food for Men. Adult *Animals* abound more in *urinous Salts* than young ones: Their Parts are more closely compacted, because more forcibly united; and so harder of Digestion. 'Tis true, the great Distinction of the *Fitness* or *Unfitness* of the several Sorts of *Animals* and *Vegetables* for human Food, depends upon their *original Make, Frame, and Nature* (and that can be found out only

only by Experience) as also upon the *special Taste, Completion, Temperament, and Habits* of the Person that feeds on them. But by the Help of these *Three Principles, viz. First*, That the *Strength* or Weakness of Cohesion of the Particle, of fluid Bodies, depends upon their *Bigness* or *Smallness*; that is, the *biggest* Particles cohere more firmly, than the *smaller*, because more Parts come into Contact in large Bodies than small, and so their *Union* is greater. *Secondly*, that the *greater* the Force [*Momentum*] is, with which two Bodies meet, the stronger is their Cohesion, and the more difficult their Separation. *Thirdly*, that *Salts*, being comprehended by plain *Surfaces*, being *hard*, and in all Changes recovering their Figure, unite the most firmly of any Bodies whatsoever: Their plain *Surfaces* bring many Points into *Contact* and *Union*: their *Hardness* and constant *Figure* make them *durable* and *unalterable*; and thereby the *active Principles*, and the Origin of the Qualities of Bodies; and when they approach within the *Sphere* of one another's *Activity*, they firmly unite in *Clusters*; all which make the Separation of their original *Particles* the more difficult. I say, from these *three Principles*, we may in general compare the Easiness or Difficulty of digesting (that is, breaking into small Parts) the several Sorts of *Vegetables* and *Animals*, one with another; and so discover their *Fitness* or *Unfitness* for becoming Food for tender and *valetudinary* Persons.

I. All other Things being supposed equal, those *Vegetables* and *Animals*, that come to *Maturity* the soonest, are *lightest* of *Digestion*. Thus the Spring *Vegetables*, as *Asparagus*, *Straw-berries*, and some Sorts of *Sallading*, are more easily digested than *Pears*, *Apples*, *Peaches*, and *Nectarines*; because they have less of the *solar Fire* in them; their Parts are united by a weaker Heat; that is, with less *Velocity*, and abound less in, nay scarce have any strong and fixed *Salts*. Among the *Animals*, the common Poultry, *Hares*, *Sheep*, *Kids*, *Rabbits*, &c. who in the same, or a few Years come to their *Maturity* (that is, to propagate their *Species*) are much more tender and readily digested than *Cows*, *Horses*, or *Asses*, were these last in use for Food,

as they have been in *Famine*) &c. for the Reason already given, because their Parts cohere less firmly. And it is observable, of the *Vegetables*, which are longest a ripening, that is, whose *Juices* have most of the *solar* Rays in them, that their *fermented Juices* yield the strongest *vinous* Spirits; as *Grapes*, *Elder-berries*, and the like: and of the *Animals* that are longest in coming to *Maturity*, that their *Juices* yield the most rank and most *fetid* urinous *Salts*.

2. Other Things supposed *equal*, the *larger* and *bigger* the *Vegetable* or *Animal* is, in its Kind, the *stronger* and the *harder* to digest is the Food made thereof. Thus a large *Onion*, *Apple*, or *Pear*, and large *Beef* and *Mutton* are *harder* to digest than the *lesser* ones, of the same Kind; not only, as their Vessels being stronger and more *elastick*, their Parts are brought together with a *greater* Force; but also, because the *Qualities* are proportionably more intense in great Bodies of the same Kind: Thus, other Things being equal, a *greater* Fire is proportionably more intensely hot, than a lesser one; and the Wine contained in a larger Vessel becomes stronger than that contained in a lesser; and consequently the Juices of larger *Animals* and *Vegetables* are more rank than the Juices of smaller ones of the same Kind.

3. Other Things being equal, The proper Food appointed for *Animals* by Nature, is easier digested than the *Animals* themselves; those *Animals* that live on *Vegetables*, than those that live on *Animals*; those that live on *Vegetables* or *Animals*, that soonest come to *Maturity*, than those that live on such as are longer a ripening. Thus *Milk* and *Eggs* are lighter of Digestion than the *Flesh* of *Beasts* or *Birds*; *Pullets* and *Turkies*, than *Ducks* and *Geese*; and *Partridge*, and *Pheasant* are lighter than *Woodcock* or *Snipe*; because these last, being *long-billed*, suck only *animal* Juices; and for the Reasons already given, *Grass Beef* and *Mutton* are lighter than *stall-fed Oxen* and *Sheep*.

4. All Things else being alike, *Fish* and *Sea-Animals* are *harder* to digest than *Land-Animals*; because universally their Food is other *Animals*, and the *Salt Element* in which they

they live compacts their Parts more firmly; *Salts* having a stronger Power of *Cohesion* than other Bodies. And for the same Reason, *Salt Water Fish* is harder to digest than *fresh Water*. Thus the *Sea Tortoise* is harder to digest than the *Land Tortoise*; and *Sturgeon* and *Turbit*, than *Trout* or *Perch*.

5. Other things being equal, *Vegetables* and *Animals* that abound in an *oily*, *fat*, and *glutinous* Substance, are harder to digest, than those of a *dry*, *fleshy*, *fibrous* Substance; because *oily* and *fat* Substances elude the Force and Action of the *concoctive* Powers; and their Parts attract one another, and unite more strongly than other Substances do, (except *Salts*) as Sir *Isaac Newton** observes.

Their *Softness* and *Humidity* relaxes and weakens the Force of the Stomach, and the *Fat* and *Oil* itself is shut up in little *Bladders*, that are with Difficulty broken. Thus *Nuts* of all kinds pass through the *Guts*, almost untouched: *Olives* are harder to digest than *Pease*; *fat* *flesh* *Meat*, than the *lean* of the same. *Carp*, *Tench*, *Salmon*, *Eel*, and *Turbit*, are much harder to digest than *Whiting*, *Perch*, *Trout*, or *Haddock*.

* Vide Sir Isaac Newton's first English Edition of *Light and Colours*.

6. *Vegetables* and *Animals*, all Things else being alike, whose Substance is *white*, or inclining to the *lighter* Colours, are *lighter* to digest, than those whose Substance is *redder*, *browner*, or inclining towards the more flaming Colours; not only because the Parts that reflect *white*, and the lighter Colours are lesser in Bulk than those that reflect the more flaming Colours†; but also because those of the more flaming Colours abound more with urinous *Salts*. Thus *Turnips*, *Parsnips*, and *Potatoes*, are lighter than *Carrots*, *Skirrets*, and *Beet Raves*, *Pullet*, *Turkey*, *Pheasant*, and *Rabbit*, are lighter than *Duck*, *Geese*, *Woodcock*, and *Snipe*. *Whiting*, *Flounder*, *Perch*, and *Soals*, are lighter than *Salmon*, *Sturgeon*, *Herring*, and *Mackarel*. *Veal* and *Lamb* is lighter than *Red* or *Fallow* *Deer*.

† See the just quoted Author.

7. Lastly, All other Things being equal, *Vegetables* and *Animals* of a strong, poignant, aromack and hot Taste, are

are *harder* to digest than those of a *milder, softer*, and more *insipid* Taste. High Relish comes from abundance of Salts: Abundance of Salts supposes *adult Animals*, and such as are long a coming to *Maturity*; and where Salts abound, the Parts are more difficultly separated, and harder to be digested. Strong and *aromatick* Plants imbibe and retain most of the *solar* Rays, and become solid Spirits, or fixed *Flames*. And they that deal much in them swallow so much *live Coals*, which will at last inflame the Fluids and burn up the Solids.

§. 3. There is nothing more certain, than that the greater Superiority the *concoctive* Powers have, over the Food, or the stronger the *concoctive* Powers are, in regard of the Things to be *concocted*; the *finer* the Chyle will be, the *Circulation* the more free, and the *Spirits* more lightsome; that is, the better will the Health be. Now from these general Propositions, taking in their own particular *Complection* and *Habits, valetudinary, studious, or contemplative* Persons may easily fix upon these particular *vegetable* or *animal* Foods, that are fittest for them. And if any Error should be committed, 'tis best to err on the safest Side, and rather chuse those Things that are under our *concoctive* Powers, than those that are above them. And in the Choice of *Animals* for our Food, we must not pass over the Manner of fattening and fitting them up for the Table. About *London* we can scarce have any, but cramm'd Poultry, or *stall-fed* Butchery Meat. It were sufficient to disgust the stoutest Stomach, to see the foul, gross, and nasty *Manner*, in which, and the *fetid, putrid* and unwholesome *Materials*, with which they are fed. Perpetual Foulness and Cramming, gross Food and Nastiness, we know, will putrify the *Juices*, and mortify the *muscular* Substance of *human* Creatures; and sure they can do no less in Brute *Animals*, and thus make even our Food Poison. The same may be said of hot Beds, and forcing *Plants* and *Vegetables*. The only Way of having sound and healthy *animal* Food, is to leave them to their own *natural Liberty*, in the free Air, and their own proper *Element*, with Plenty of Food, and due Cleanness, and a Shelter

Shelter from the Injuries of the Weather, when they have a Mind to retire to it. I add nothing about *Cookery*: Plain Roasting and Boiling is as high, as *valetudinary*, *tender*, *studious*, and *contemplative* Persons, or those who would preserve their Health, and lengthen out their Days, ought to presume on. *Made Dishes*, *rich Soop*, *high Sauces*, *Baking*, *Smoaking*, *Salting*, and *Pickling*, are the Inventions of *Luxury*, to force an unnatural Appetite, and encrease the Load, which Nature, without Incentives from ill Habits, and a vicious Palate, will of itself make more than sufficient for *Health and long Life*. *Abstinence* and proper *Evacuations*, due *Labour* and *Exercise*, will always recover a decayed *Appetite*, so long as there is any Strength and *Fund* in Nature to go upon. And 'tis scarce allowable to provoke an Appetite, with medicinal Helps, but where the *digestive* Faculties have been spoiled and ruined by acute or tedious *chronical* Distempers. And as soon as 'tis recovered to any tolerable Degree, *Nature* is to be left to its own Work, without any Spurs from *Cookery* or *Physick*.

§. 4. The next Consideration is the *Quantity* of Food that is necessary to support Nature, without overloading it, in a due Plight: That is indeed various, according to the *Age*, *Sex*, *Nature*, *Strength*, and *Country* the Party is of, and the *Exercise* he uses. In these *Northern* Countries, the Coldness of the *Air*, the *Strength* and large Stature of People, demand larger Supplies than in the *Eastern* and warmer Countries. Young growing Persons, and those of great Strength, and large Stature, require more than the Aged, Weak, and Slender. But Persons of all Sorts will live more healthy and longer by universal *Temperance*, than otherwise. And some general Observations on the *Quantity* Persons of different Nations and Conditions, have lived on, healthy, and to a great Age, may give some Assistance to *valetudinary* and *tender* Persons, to adjust the due *Quantity* necessary for them.

§. 5. It is surprising, to what a great Age the *eastern Christians*, who retir'd from the Persecutions into the Desarts of *Egypt* and *Arabia*, lived healthful on a very little Food.
We

We are inform'd by *Cassian*, that the common Measure in twenty four Hours, was about twelve Ounces or a Pound, (for the *eastern* Pound was but twelve Ounces) with mere Element for Drink. *St. Anthony* liv'd to 105 Years, on mere Bread and Water, adding only a few Herbs at last. *James the Hermit*, to 104. *Arsenius*, the Tutor of the Emperor *Arcadius*, to 120: 65 in the world, and 55 in the Desert. *St. Epiphanius*, to 115. *St. Jerome*, to about 100. *Simeon Stylites*, 109. And *Romualdus*, 120. And *Lewis Cornaro*, a *Venetian* Nobleman, after he had used all other Remedies in vain, so that his Life was despair'd of at 40, yet recover'd and liv'd, by the mere Force of his Temperance, near to 100 years.

§. 6. Our Northern Climate, as I said from the Purity and Coldness of the Air, which bracing the Fibres, makes the *Appetite* keener, and the Action of Digestion stronger; and from the Labour and Strength of the People, which makes the Expences of living more, will necessarily require a greater Quantity of Food. Yet 'tis wonderful in what Sprightliness, Strength, Activity, and freedom of Spirits, a low Diet, even here, will preserve those that have habituated themselves to it. *Buchanan* informs us, of one *Laurence* who preserved himself to 140, by the mere Force of Temperance and Labour. *Spotswood* mentions one *Kentigern* (afterwards called *St. Mongah*, or *Mungo*, from whom the Famous Well in *Wales* is named) who lived to 185 Years, tho' after he came to the Years of Understanding, he never tasted Wine nor strong Drink; and slept on the cold Ground. My worthy Friend *Mr. Web*, is still alive. He by the Quickness of the Faculties of the Mind, and the Activity of the Organs of his Body, shews the great Benefit of a low Diet,

* See an Essay
on the Gout and
and Bath Waters.

living altogether on vegetable Food and pure Element. The History of the Milk * Doctor of *Croydon*, who by living on Milk only cured himself of an otherwise incurable Distemper, viz. the *Epilepsy*, and liv'd in perfect Health for sixteen Years after, till an Accident cut him off, I have already narrated in my Treatise of the Gout. *Henry Jenkins* a Fisherman, liv'd 169 Years, his Diet was coarse and
sower,

sower, as his *Historian* informs us, that is, plain and cooling, and the Air where he lived sharp and clear, *viz.* *Allerton* upon *Swale* in *Torkshire*. *Parr* died sixteen Years younger, *viz.* at the age of 152 Years, 9 Months; his Diet was old *Cheese*, *Milk*, *coarse Bread*, *small Beer*, and *Whey*: And his *Historian* tells us, he might have lived a good while longer, if he had not changed his Diet and Air, coming out of a clear, thin, free Air, into the thick Air of *London*, and after a constant, plain, and homely country Diet, being taken into a splendid Family, where he fed high, and drank plentifully of the best Wines, whereby the natural Functions of the Parts were overcharged, and the Habit of the whole Body quite disordered; upon which there could not but soon ensue a *Dissolution*. * *Dr. Lister* mentions eight Persons in the *North of England*, the youngest of which was above 100 Years, and the eldest 140. He says, 'tis to be observed, that the Food of all this mountainous Country is exceedingly coarse. And certainly there is no Place in the World more likely to lengthen our Life than *England*, especially those Parts of it, that have a free open Air, and a gravelly and chalky Soil, if to due *Exercise*, *Abstemiousness*, and a plain simple Diet were added.

* See *Abr. of Philos. Transact.* by *Lowth*.

§. 7. I have † elsewhere offered to determine the *Quantity* of Food, sufficient to keep a Man of an ordinary Stature, following no laborious Employment, in due *Plight*, *Health*, and *Vigour*; to wit, 8 Ounces of *Flesh Meat*, 12 of *Bread*, or vegetable Food, and about a Pint of *Wine*, or other generous *Liquor* in 24 Hours. But the *Valetudinary*, and those employed in *sedentary* Professions, or *intellectual* Studies, must lessen this *Quantity*, if they would preserve their *Health*, and the Freedom of their *Spirits* long. *Studious* and *sedentary* Men must of Necessity eat and drink a great deal less, than those very same Men might do, were they, engaged in an *active* Life. For as they want that *Exercise* that is necessary towards *Concoction* and *Perspiration*, and that their *Nerves* are more worn out by *intellectual* Studies, than even bodily Labour would waste them; if, in any wise, they indulge

† See the *Essay of the Gout and Bath Waters*.

dulge *Freedom of Living*, their Juices must necessarily become viscid, and their *Stomachs* relaxed. He that would have a *clear* Head must have a *clean* Stomach. The Neglect of which is the Cause, why we see so many *hypochondriacal*, melancholy, and vapourish Gentlemen, among those of the *long Robe*; the only Remedy of which is *Labour* and *Abstinence*.

§. 8. Most of all the *chronical* Diseases, the *Infirmities* of old Age, and the *short* Periods of the Lives of *Englishmen*, are owing to *Repletion*. This is evident from hence; because *Evacuation* of one Kind or another is *nine* Parts of *ten* in their Remedy: For not only *Cupping*, *Bleeding*, *Blistering*, *Issues*, *Purging*, *Vomiting*, and *Sweating*, are manifest *Evacuations*, or drains to draw out what has been superfluously taken down; but even *Abstinence*, *Exercise*, *Alteratives*, *Cordials*, *Bitters*, and *Alexipharmicks*, are but several means to dispose the gross Humours to be more readily evacuated by insensible *Perspiration*; that new and well concocted *Chyle*, and sweet comminuted Juices, may take their Place to restore the Habit. And therefore it were much more easy, as well as more safe and effectual, to prevent than incur the Necessity of such *Evacuations*. And any one may lose a *Pound* of Blood, take a *Purge*, or a *Sweat*; by dropping the great Meal, or abstaining from *animal* Food and *strong* Liquors, for four or five Days (in *chronical* Cases) as effectually as by opening a *Vain*, swallowing a Dose of *Pills*, or taking a sudorific *Bolus*.

§. 9. I advise therefore all Gentlemen of *Sedentary* Life, and of *learned* Professions, to use as much *Abstinence* as possibly they can, consistent with the Preservation of their *Strength* and *Freedom of Spirits*: Which ought to be done as soon as they find any *Heaviness*, *Inquietudes*, restless Nights, or Aversion to Application; either by lessening one half of their usual Quantity of *animal* Food and *strong* Liquors, 'till such Time as they regain their wonted Freedom and Indolence; or by living a due Time wholly upon *vegetable* Diet, such as *Sago*, *Rice*, *Pudding*, and the like, and

and drinking only a little Wine and Water. And if they would preserve their *Health* and Constitution, and *lengthen* out their Days; they must either inviolably live low (or *maigre*, as the *French* call it) a Day or two in the Week; or once a Week, Fortnight, or Month at farthest, take some *domestick* Purge, which shall require neither *Diet*, nor keeping at *Home*; but may at once strengthen the Bowels, and discharge superfluous *Humours*. Of this Kind are a Dose (6 or 7) of the *Scotch Pills*; half a Dram of the *Pilula Stomachæ cum Gummi*, with three or four Grains of *Diagryd*, mixt; half a Dram of the *Pilula Ruffi*; two Ounces of *Hiera Piera*, with one Dram of the Syrup of *Buckthorn*; two or three Ounces of *Elixir Salutis*; or (what I prefer before all these) this Preparation of *Rhubarb*:

Take the best *Rhubarb* in Powder two Ounces and a half; Salt of *Wormwood* a Dram; *Orange Peel* half an Ounce; grated *Nutmeg* two Scruples; *Cochineal*, half a Dram. Infuse 48 Hours by a warm Fire-side, in a Quart of true *Arrack*. Strain it off, and put it in a well corked Bottle for Use.

Of this two or three Spoonfuls may be taken, two or three Times a Week, or at Pleasure, with great Safety and Benefit, without Interruption of Business, or Studies, and continued even to mature old Age if found necessary. So true is old *Verulam's* Aphorism: * *Nihil magis conducit ad Sanitatem & Longevitatem quam crebræ & domesticæ purgationes*. And the Gentlemen of the *long Robe*, those of *learned Professions* and *contemplative Studies*, must of Necessity at last take Sir *Charles Scarbouragh's* Advice, as 'tis said, to the *Dutchess of Portsmouth*: You must eat less, or use more Exercise, or take Physick, or be sick.

* Nothing contributes more to Health and Long Life, than frequent Family Purges.

§. 10. Those who have written about *Health* have given many Rules, whereby to know when any Person has exceeded at a *Meal*: I think, there needs but this short one, which is; If any Man has eat or drank so much, as renders

ders him unfit for the *Duties* and *Studies* of his Profession (after an Hour's sitting quiet to carry on the Digestion;) he has overdone. I mean only of those of *learned Professions* and *studious Lives*; for those of *mechanical Employments* must take the Body, the other Part of the *compound*, into Consideration. If *tender* People, and those of *learned Professions* would go by this *Rule*, there would be little Use for *Physick* or *Physicians* in *chronical Cases*. Or if they would but eat only one Part of *animal Food*, at the great Meal, and make the other two of *vegetable Food*; and drink only Water with a Spoonful of Wine, or clear small Beer; their Appetites would be a sufficient Rule to determine the Quantity of their Meat and Drink. But *Variety* of Dishes, the *luxurious* Artfulness of *Cookery*, and swallowing *rich Wine* after every Bit of Meat, so lengthen out the *Appetite*; the Fondness of Mothers, and the Cramming of Nurses have so stretched the Capacities of Receiving, that there is no Security from the *Appetite* among the better Sort. 'Tis amazing to think how Men of *Voluptuousness*, *Laziness*, and *poor Constitutions*, should imagine themselves able to carry off *Loads* of high-seasoned Foods, and inflammatory Liquours, without Injury or Pain; when Men of *mechanick Employments*, and *robust Constitutions*, are scarcely able to live healthy and in Vigour to any great Age, on a simple, low, and almost *vegetable Diet*.

§. 11. Since then our *Appetites* are deceitful, and *Weight* and *Measure* troublesome and singular; we must have Recourse to a *Rule* independent of our *Sensations*, and free from unnecessary Trouble and Pain. To answer which, I know nothing but Eating and Drinking by our *Eye*: that is, determining first of all either by *Weight* or *Measure*, or by particular Observation or *Experiment*, the Bulk, or Number of Mouthfuls of Flesh Meat, and the Number of Glasses of strong Liquors, *under* which we are best; and then by our *Eye* determining an equal Quantity at all Times for the future: Thus the two Wings of a middling Pullet, or one Wing and both Legs; three Ribs of a middling Neck of Mutton, two middling Slices of a Leg or Shoulder, throwing

ing away the *Fat* and the *Skin*; somewhat less of *Beef*, may be sufficient for *Flesh Meat*, at the great Meal. For we are so wisely contrived, that our Food need not be adjusted to *mathematical* Points: A little over or under will make no Difference in our Health. As for *Pork*, and all Kinds of *Hog's* *Flesh*, I think they ought to be forbidden *valetudinary* and studious People, as they were the *Jews*: They feed the foulest of any Creature, and their Juices are the *rankest*; their Substance the most *surfeiting*, and they are the most subject to cutaneous Diseases and Putrefaction, of any Creature; inasmuch, that in the Time of a *Plague*, or any *epidemical* Distemper, they are universally destroyed by all wise Nations, as the *Southern* People do mad Dogs in the hot Months. The same Censure I should pass upon all *Fish*. Most *Fish* live in a *saltish* Element, and come only into *fresh Water* Rivers, for the Quietness and Conveniency of bringing forth their young ones. This makes their Parts more closely united and harder of Digestion. Besides, as I have before observed, they feed upon one another, and their Juices abound with a *Salt* that corrupts the *Blood*, and breeds *chronical* Diseases. And 'tis always observable, that those who live much on *Fish* are infected with the *Scurvy*, *cutaneous Eruptions*, and the other Diseases of a *foul* *Blood*. And every Body finds himself more thirsty and heavy than usual after a full Meal of *Fish*, let them be ever so fresh; and is generally forced to have Recourse to *Spirits* and distilled Liquors to carry them off: So that it is become a *Proverb*, among those that live much upon them, that *Brandy* is *Latin* for *Fish*. Besides, that after a full Meal of *Fish*, even at Noon, one never sleeps so sound the ensuing Night; as is certain from constant Observation. These few Hints may serve the *valetudinary* Person, in a gross Manner, to judge by the Eye the Quantity of solid *Flesh Meat* he takes or ought to take down: For I judge the mention'd Quantities to be rather a little under than over *eight Ounces*. As to *Broths*, *Soops*, and *Jellies*, if they be strong, I account them equal in *Nourishment* and harder to digest than the same Weight of solid *Flesh Meat*; and three or four common Spoonfuls, at most, make an *Ounce* in Weight in Liquids; and about double the Number of Bits commonly swallowed at once make

make the same Weight in solid Flesh Meat ; for Exactness is not here requisite.

§. 12. *Drink* is the other Part of our Food. The common *Drink* here in *England* is either *Water*, *Malt-Liquor*, or *Wine*, or *Mixtures* of these ; for *Cyder* and *Perry* are drank but in few Places, and rather for *Pleasure* and *Variety* than common Use. Without all peradventure, *Water* was the primitive, original *Beverage*, as it is the only Simple *Fluid* (for there are but three more in Nature, *Mercury*, *Light*, and *Air*, none of which is fit for human *Drink*) fitted for diluting, moistening and cooling ; the Ends of *Drink* appointed by Nature. And happy had it been for the Race of Mankind other mixt and artificial *Liquors* had never been invented. It has been an agreeable Appearance to me to observe, with what *Freshness* and *Vigour*, those who, tho' eating freely of *Flesh Meat*, yet drank nothing but this *Element*, have lived in *Health*, *Indolence*, and *Cheerfulness*, to a great Age. *Water* alone is sufficient and effectual for all the Purposes of human Wants in *Drink*. Strong *Liquors* were never designed for common Use : They were formerly kept (here in *England*) as other Medicines are, in *Apothecaries Shops*, and prescribed by *Physicians*, as they do *Diascordium* and *Venice-Treacle* ; to refresh the *Weary*, to strengthen the *Weak*, to give Courage to the *Faint-hearted*, and raise the *Low-spirited*, And it were as just and reasonable to see Men (and if they go on, it is not impossible I may hear of it, since *Laudanum* is already taken into Feasts and Entertainments) sit down to a Dish of *Venice-Treacle*, or Sir *Walter Rawleigh's Confection*, with a Bottle of *Hysserick Cordial*, as to a Dish of *Crawfish Soop*, an *Ox-Cheek* or *Venison-Pasty*, with a Bottle of *Hermitage*, or *Tockay*, or which some prefer to either of them, a Bowl of *PUNCH*. *Wine* is now become as common as *Water* ; and the better Sort scarce ever dilute their Food with any other *Liquor*. And we see, by daily Experience, that (as natural Causes will always produce their proper Effects) their Blood becomes inflamed into *Gout*, *Stone*, and *Rheumatism*, raging *Fevers*, *Pleurisies*, *Small Pox*, or *Measles* ; their Passions are enraged into *Quarrels*, *Murder*, and *Blasphemy* ; their Juices are dried

dried up; and their Solids scorch'd and shrivel'd. Those whose Appetite and Digestion is good and entire, never want strong Liquors to supply *Spirits*: Such *Spirits* are too *volatile* and fugitive for any solid or useful Purposes in Life. Two Ounces of *Flesh Meat*, well digested, beget a greater Stock of more durable and useful *Spirits*, than ten Times as much *strong Liquors*, which nothing but *Luxury* and *Concupiscence* makes necessary. Happy those, whom their *Parents*, their natural Aversion to strong Liquors, or whom kind *Providence* among the *better Sort*, has brought to the Age of *Maturity* and *Discretion*, without dealing in or desiring any great *Quantity* of *Strong Liquors*: Their *Passions* have been *calmer*, their *Sensations* more *exquisite*, their *Appetites* less *unruly*, and their *Health* more uninterrupted, than any other *natural Cause* could have produced. And thrice happy they, who continue this Course to their last Minutes. Nothing is more ridiculous than the common *Plea* for continuing in drinking on, large *Quantities* of *spirituous Liquours*; viz. Because they have been accustomed so to do, and they think it *dangerous* to leave it off, all of a sudden. It were as reasonable for him that is fallen into the *Fire* or *Water* to lie there, because of the *Danger* of removing him suddenly. For neither *Element* will destroy him more certainly, before his Time, than wallowing in *strong Liquors*. If the *Quantity* of strong Liquors they have been accustomed to, may be supposed prejudicial to their *Health*, or to introduce *noxious Humours* into the *Habit*; the sooner Stop be put to it, the better. No Man is afraid to forbear *strong Liquours* in an *acute* Distemper, what *Quantity* soever he might have drank in his Health: And yet any sudden Change of the *Humours* would not only be more *dangerous* then, than at any other Time; but also would more readily happen and come to pass, in such critical Cases. For the whole *System* of the *Fluids*, being in a *Fermentation*, small Changes or Errors then, would not only be more fatal, but more plain and obvious. And if a Person be in Hazard by such a *sudden* Alteration, he cannot live long by taking down so much *Poison*. But the Matter of *Fact* is false and groundless. For I have known and observed constant

constant good Effects from leaving off suddenly great Quantities of *Wine* and *Flesh Meats* too, by those long accustom'd to both, am ready to name the Persons, and never observed any ill Consequence from it in any Case whatsoever. Those whose Constitutions have been quite broken, and running into *Dissolution*, have lived longer, and been less pained in Sicknes by so doing: And those who have had a *Fund* in Nature to last longer, have grown better, and attained their *End* by it. I allow every Man, that has been accusom'd to drink *Wine*, or *strong Liquors*, a Pint in 24 Hours: And I am well satisfied, that *Quantity* is sufficient for *Health*, let their Custom have been what it will. Their *Spirits* may indeed *flag* and *sink* a little at first, for Want of introduced *Quicklime* and *Fire*. But *Low-spiritedness*, in such a Case, I count no *Disease*. And bearing it for some Time, is bountifully recompenced by the *Health*, *Indolence*, and *Freedom of Spirits*, they afterwards enjoy: Not taking into Consideration their being rescued from the Tyranny of so *immoral* and mischievous a *Habit*. It may be sufficient for those who are tender, studious, or contemplative, to drink three Glasses of Water with a Spoonful of *Wine* at the *great Meal*. And as Sir *W. Temple* has it, One for your *Self*, another for your *Friends*, a third for good *Humour*, and a fourth for your *Enemies*, are more than sufficient after it.

§. 13. A great Mistake committed in this Affair is, that most People think the only *Remedy* for *Gluttony* is *Drunkenness*, or that the Cure of a *Surfeit of Meat* is a *Surfeit of Wine*: Than which nothing can be more false, or contrary to Nature; for, 'tis lighting, as the Saying is, *the Candle at both Ends*. For, first of all, *Wine* and all other strong *Liquors*, are as hard to digest, and require as much *Labour* of the *concoctive Powers*, as *strong Food* itself. This is not only evident with Respect to People of *weak Stomachs*, but also from hence, that healthy People who drink only *Water*, or weak *small Beer*, shall be able to eat and digest almost double of what they could, did they drink *strong Liquors* at their *Meals*, as every one that pleases may experience. *Water* is the only universal *Dissolvent* or *Menstruum*, and the most certain

certain Diluter of all Bodies proper for Food; tho' there are a great many that *spirituous Liquors* not only will not dissolve, but will *harden*, and make more *undigestible*; especially the *Salts* of Bodies, wherein their *active Qualities*, that is, those which can do most *Harm* to *human Constitutions*, consist. And I have known Men of *weak and tender Constitutions*, who could neither eat nor digest upon drinking of *Wine*, who, by drinking at Meals common *Water* heated, have recovered their *Appetites* and *Digestion*, have thriven and grown plump. 'Tis true *strong Liquors*, by their *Heat* and *Stimulation* on the *Organs* of *Concoction*, by encreasing the *Velocity* of the *Motion* of the *Fluids*, and thereby quickening the other *animal Functions*, will carry off the Load that lies upon the *Stomach*, with more present *Chearfulness*: Yet, besides the future Damages of such a *Quantity* of *Wine*, to the *Stomach* and to the *Fluids*, by its *Heat* and *Inflammation*, the *Food* is hurried into the *Habit*, *unconcocted*, and lays a *Foundation* for a *Fever*, a *Fit* of the *Colick*, or some *chronical Disease*.

§. 14. Another *Mistake* I shall observe, is the extreme Fondness Persons of the *better Sort* here in *England*, have lately run into, for the strong and *high Country Wines*. I can think of no Reason for this, but the very honest one the *Vulgar* give for drinking *Brandy*: that they get sooner drunk on it. For surely the middling lighter *Wines*, inflame the *animal Juices* less, go more easily off the *Stomach*, and afford more Room for long *Conversation* and *Chearfulness*. *Excess* in them, gives less Pain, and is sooner remedied. But there are Degrees in this Matter. * *Nemo repente fuit turpissimus*. They begin with the weaker *Wines*; these by *Use* and *Habit* will not do, they leave the *Stomach* sick and *mawkish*, they must fly to stronger *Wine*, and stronger still, and run the † *Climax*, through *Brandy* to *Barbadoes Waters*, and double distill'd *Spirits*, † *Rise higher by degrees*. 'till at last they can find nothing hot enough for them. People who have any Regard for their *Health* or *Lives*, ought to tremble at the first *Cravings*, for such *poisonous Liquors*. *Strong Waters* should never be taken but

* No Body becomes extremely bad all at once.

† Rise higher by degrees.

by the *Direction* of a *Physician*, or in the *Agonies* of *Death*. For when Persons arrive at that State, that they become necessary to their *Ease* and *Freedom* of *Spirits*; they may be justly reckoned among the *Dead*, both as to the short Time they have to live, and the little Use they can be of either to themselves or Mankind. I speak not here of those who are under an actual Fit of the *Gout*, or *Cholick* in the *Stomach*. (*We must not die for fear of dying.*) Nor am I recommending *sour Verjuice* or *unripe Wines*. But I cannot help being well satisfied, both from *Reason* and *Experience*, that the *light Wines*, of a *moderate Strength*, due *Age* and full *Maturity*, are much preferable for *Chearfulness* and *Conversation*, much more wholesome for human *Constitutions*, and much more proper for *Digestion* than the hot and strong Wines. The rich, strong, and heavy Wines ought never to be tasted without a sufficient Dilution of Water; at least they should

* i. e. At most
to take but three
small Glasses of
such.

be used, like Brandy or Spirits, for a Cordial *. *Ad summum tria pocula sume.* Whatsoever is more cometh of *Sin*, and must be diluted with the Waters of *Repentance*.

§. 15. I have no Intention here to discourage the innocent Means of *enlivening Conversation*, promoting *Friendship*, comforting the *sorrowful Heart*, and raising the *drooping Spirits*, by the *cheerful Cup* and the *social Repast*. Perhaps I

† Horat. i. e.
An agreeable
Frolick or Extravagance.

may like the harmless *Frolick*, the warm Reception of a Friend, and even the † *Dulce Furere* itself, more than I ought: Persons sober in the main, will receive little Prejudice from such a *Fillip*, when the Occasions happen but seldom, and especially when they make it up, by a greater Degree of *Abstinence* afterwards. But a *Sot* is the lowest Character in Life. Did only the *Profligate*, the *Scoundrel*, the *Abandon'd*, run into these Excesses, it were in vain to endeavour to reclaim them, as it were, to stop a *Tempest*, or calm a *Storm*. But now that the *Vice* is become *Epidemical*, since it has got not only among *Mechanicks* and *Tradesmen*, but among Persons of the brightest *Genius*, the finest *Taste*, and the most accomplish'd *Parts*; and (oh that I could give

give my Conscience the *Lye*, in mentioning them!) even among the *first* and *least* fallen Part of the *Creation* itself, and those of them too, of the most elegant *Parts*, and the strictest *Virtue* otherwise; and which is still the most surprising of all, even those too, who are in all other *Respects* blameless. Since I say the Case is so, it will not be amiss to shew, to the Evidence of a *Demonstration*, the Folly as well as the Fruitlessness of such a Course. A Fit of the *Cholick*, or of the *Vapours*, *Family-Misfortune*, a casual *Disappointment*, the Death of a *Child*, or of a *Friend*, with the Assistance of the *Nurse*, the *Midwife*, and the next *Neighbour*, often give Rise and become the weighty Causes of so fatal an Effect. A little *Lowness* requires *Drops*, which pass readily down under the Notion of *Physick*; Drops beget *Drams*, and *Drams* beget more *Drams*, 'till they come to be without Weight and without Measure; so that at last the miserable Creature suffers a true *Martyrdom*, between its natural *Modesty*, the great Necessity of concealing its Cravings, and the still greater one of getting them satisfied *some how*. Higher and more severe Fits of *Hystericks*, *Tremors*, and *Convulsions*, begot by these, bring forth farther Necessity, upon Necessity, of *Drops*, *Drams*, and *Gills*, 'till at last a kind *Dropsy*, *nervous Convulsions*, a *nervous Atrophy*, or a *colloquative Diarrhæa*, if not a *Fever*, or a *Frenzy*, set the poor Soul free. It has very often raised in me the most melancholy *Reflexions*, to see even the *Virtuous*, and the *Sensible*, bound in such Chains and Fetters, as nothing less than *omnipotent Grace*, or the *unrelenting Grave* could release them: They were deaf to *Reason* and *Medicine*, to their own *Experience*, and even to the express Words of *Scripture*, that says, the *Drunkard shall not inherit the Kingdom of Heaven*. Did this bewitching *Poison* actually cure or relieve them, from Time to Time; something might be said to extenuate the *Folly* and *Frenzy* of such a Course. But, on the contrary, it heightens and enrages all their Symptoms and *Sufferings*, ever afterwards, excepting the few Moments immediately after taking it down; and every *Dram* begets the Necessity of two more, to cure the ill *Effects* of the *first*; and one Minutes Indolence they purchase with many Hours of greater *Pain* and *Misery*; besides the making the *Malady*, more incurable. *Low-spiritedness* in itself is

no Disease; besides that there are *Remedies* in *Art* that will always relieve it, so long as there is any *Oil* remaining in the *Lamp*; and 'tis in vain to try to raise the *Dead*. *Exercise*, *Abstinence*, and proper *Evacuations*, with *Time* and *Patience*, will continually make it *tolerable*, very often they will perfectly cure it. The running into *Drams* is giving up the whole at once; for neither *Laudanum* nor *Arsenick* will kill more certainly, although more quickly. The Pretence of its being *Physick*, or a present *Remedy*, is trifling. *Cordials* of any Kind, even out of the *Apothecaries* Shops, are but *Reprieves* for a Time, to gain a *Respite*, 'till proper and extirpating *Remedies* can take Place; and are never to be used twice, the one immediately after the other, but in the last Necessity. And I can honestly say, I never failed of relieving, so as to make Life *tolerable*, *vapourish*, *hysterical*, or *hypochondriacal* Persons, who would be governed in their *Diet*, by the Use of other proper *Means*, if there was a *Fund* in *Life*, and no *incurable* Disease, complicated with *Lowness*. Thus much the *Weight* of the Subject forced from one: more than this, its *Disagreeableness* hinders me to say.

§. 16. Next to *Drams*, no Liquor deserves more to be stigmatized and banished the Repasts of the *Tender*, *Valerudinary*, and *Studious*, than PUNCH. 'Tis a Composition of such Parts, as not one of them is *salutary*, or kindly to such *Constitutions*, except the pure Element in it. The principal *Ingredient* is *Rum*, *Arrack*, *Brandy*, or *Malt Spirits*, as they are called, all of them raised by the *Fire*, from the *fermented Juices* of Plants, brought from *Southern* Countries, or which have longest born the *Heat* of the *Sun* in our own *Climate*: And 'tis observable, that every Thing that has past the *Fire*, so that it has had due Time to divide and penetrate its Parts, as far as it possibly can, retains a *caustick*, *corrosive*, and burning *Quality* ever afterwards. This is evident from the *fiery* and *burning Touch* and *Taste* of new-drawn *Spirits*, as also from the *burning* of *Lime-stone*, which, tho' extinguish'd by Boiling Water, does ever after retain its heating and drying *Quality*, as appears from the great Use of *Lime Water*, in drying up all *humid Sores*, when given inwardly by itself, or compound-
ed

ed with *Sudorific* Woods and Roots, and from its *Success* in outward Applications for the same Purposes. And tho' Time may in some Measure get the better of this, in its sensible and obvious Operations; yet since *Water* is a grosser Body than *Fire* or *Flame*, it never can penetrate it so far as quite to extinguish its inmost *Heat*; especially if we consider, that *Spirits* are but an *Accumulation* of fine *Salts* and light *Oil*, compacted together into the smallest *Volume*; the first whereof is so hard and solid, as naturally to retain their *Heat* the longest, into which *Water* cannot enter; the other, to wit the *Oyle*, is so inflammable, that is most readily receives *Heat* and *Fire*, and defends the *Salts* from the Power of *Water* over them. And in the continued *Distillation* of *Spirits*, this Action of the *Fire* is so strong, as to reduce them to liquid *Flames* at last, which will of themselves evaporate in visible *Flames* and *Fumes*. The other principal Part of the *Composition* is the *Juices* of *Oranges* and *Lemons*. And if we consider, that a *Lemon* or *Orange* could never be transported *half Seas* over to us, without rotting or spoiling, if gathered when wholly *ripe*, we should have no great Opinion of their *Juices*. Every *Spanish* or *Portugal* Merchant can inform us, that they must be gathered *green*, or at least a *Month* before they are *ripe*, else they are not fit to be sent beyond the *Seas*. The *Sea-Air*, and their being shut up *close*, gives them that *golden yellow Colour*, we so much admire. The *Juice* of a *Crab Apple*, of *unripe Grapes*, or *Goose-berries*, or even good *Juice* of *Sorrel*, would come up at least to their Virtue of extinguishing the *Heat* of *Spirits*, if not to their *Flavour*. And how kindly a *Guest* such *Juices* would be to the *fine Fibres* of weak *Stomachs* and *Bowels*, I leave every one to judge. The Truth is, all *fermenting* *Juices*, such as these *eminently* are, must be highly injurious to weak *Constitutions*; for meeting with the *Cruditie*s in the *Bowels*, they must raise a new *Battle* and *Colluctation* there, and so must blow up the whole *Cavities* of the *human Body*, with acid *Fumes* and *Vapours*, the great and fore Enemy of such *Bowels*. And in the *West Indies*, where from the Necessity of drinking much, because of the Violence of the *Heat*, and from the Want of proper *Liquors* there,

there, they are forc'd to drink much PUNCH, tho' Lemons and Oranges be in their full Perfection, they are universally afflicted with Nervous and Mortal dry-Belly-aches, Palsies, Cramps, and Convulsions; which cut them off in a few Days, entirely owing to this poisonous Mixture.

The Bath-Water is the only Remedy in such Cases, whether they all halt, if they can get thither alive. And here I have been inform'd of this Fact, by Men of the Profession, as well as their Patients, who universally ascrib'd them to their drinking of PUNCH and Spirituous Liquours. If Acids must be had, without all peradventure, the Vinous ones, are the best and safest. The Romans, tho' they had the vegetable Acids in Perfection, made very little Use of them but in Cookery, where the Quantity of the Poison was so small, as not to do sufficient Harm, to forbid their using them for the Sake of the exquisite Relish they gave their Sauces; and the constant Drink of the lower Souldiery was Vinegar and Water, which they found of excellent Use, both as it prevented Fevers, Plagues, and Putrefaction; and also as it gave an Energy to the unactive Element, and hindered it from lodging in the Body. Hence also the great Use of Oxymel and Oxycrate, (that is of Vinegar with Honey and with Water) among all the ancient Physicians. And indeed, whenever they prescrib'd an Acid, they very prudently join'd a Corrective with it, both to promote its good, and to prevent its bad Effects. The two remaining Ingredients are Sugar and Water; and these I will give up to the Punch-Drinkers, and allow them all the Benefit of them, they can bring to this Composition: Yet it will still have Malignity sufficient remaining, to be held in Detestation, (at least for any great Use, or in any great Quantity, for some Poisons are so, only by their Quantity by those tender and valetudinary Persons who value Health and Life. The Strong, the Voluptuous and the Abandoned, need no Advice, at least they will take none. I could never see any Temptation, for any one in their Senses, to indulge in this Heathenish Liquor, but that it makes its Votaries the soonest, and all of a sudden the deepest Drunk, holds them longest in the Fit, and deprives them the most entirely of the Use of their Intellectual Faculties,

culties, and *Bodily Organs*, of any Liquor whatsoever. It is likeliest *Opium*, both in its Nature, and in the Manner of its Operation, and nearest *Arsenick* in its *deleterious* and *poisonous* Qualities: And so I leave it to them,

Who knowing this, will yet drink on and die.

§. 17. As to Malt Liquors, they are not much in Use, excepting *small Beer*, with any but *Mechanicks* and *Fox-hunters*. The *French* very justly call them *Barley-Soop*. I am well satisfied, a *weak Stomach* can as readily and with less Pain, digest *Pork*, and *Pease-Soop*, as *Torshire* or *Nottingham Ale*. They make excellent *Bird-lime*, and when *simmer'd* some time over a gentle Fire, make the most sticking, and the best *Plaster*, for *old Strains* that can be contriv'd. Even the *small Beer* that is commonly drank at *London*, if it be not *well Boiled*, very *Clear*, and of a *due Age*, must be hurtful to Persons of *weak Nerves*, and *slow Digestion*. For *fermenting* again in the *alimentary Channels*, it will fill the whole *Cavities* of the Body with *Windy Fumes* and *Vapours*, which will at length play odd *Pranks* in a *crazy Constitution*. In Fine, the *Valetudinary*, *Studious*, and *Contemplative*, must be contented with a *Pint* of *middling, light Wine* a Day, one half with, and the other without *Water*.

§. 18. Since the Time *foreign Luxury* has been brought to its Perfection here, there are a kind of Liquors in Use among the better Sort, which some great *Doctors* have condemn'd, by *Bell, Book, and Candle*, and others have as extravagantly commended: I mean, *Coffee*, *Tea*, and *Chocolate*. For my own Part, I take all their *Virtue* to consist in *Custom*, and all their *Harm* in *Excess*. As to *Coffee*, it is a meer *Calx*, or a Kind of burnt *Horse Bean*, but lighter on the Stomach, and of somewhat a better Flavour. The *Turks* use it, and *Opium* instead of *Brandy*. But the Plea that some make for running into Excess in it, from this *Mahometan Custom*, is altogether weak and groundless; for those that do so there, suffer by it, as we do here: And those that Debauch in it, turn *Stupid*, *Feeble*, and *Paralitick* by it, especially when they join *Opium* with it, as they frequently do, as those who wallow in these, do here, and are as much despis'd and expos'd by serious Persons,

sons, as our *Topers* and *Brandy-swillers* are here. A Dish of two of *Coffee*, with a little *Milk* to soften it, in raw or damp Weather, or on a *Waterish* and *Flegmatick* Stomach, is not only innocent, but a present Relief. But 'tis as ridiculous, and perhaps more hurtful, at least in thin and *dry* Habits, to dabble in it two or three Times every Day, as it would be for such to drink nothing but scalding *Lime-Water*. There are two Kinds of *Tea* in Use, *Green* and *Bohea*. Mr. *Curingham*, who

*Vide Phil. Col-
lect.

liv'd several Years in *China*, a very learned and accurate Person* informs us, that they are both gathered from the same Shrub, but at different Seasons of the Year; and that the *Bohea* is gather'd in the Spring, and is dried in the *Sun*, the *Green* at the *Fire*. But I suspect, and not without Authority, that, besides these Differences in drying, some *Infusion* of another Plant or Earth (perhaps such a one as that of *Japan Earth*, or *Catechu*) must be poured on some sorts of *Bohea Tea*, to give it the *Softness*, *Flavour*, and *Heaviness* on the Stomach it has, whereby it becomes a meer *Drug*, and wants the natural *Simplicity* of *Green Tea*, which when light, and drank neither too strong nor too Hot, I take to be a very proper *Diluent*, when softn'd with a little *Milk*, to cleanse the *alimentary* Passages, and wash off the *Scorbutick* and *Urinous Salts*, for a Breakfast, to those who live full and free; as also it, or *Tea* made of a slic'd *Orange* or *Lemon*, is one of the best promoters of *Digestion* after a full Meal, or when one is adry between Meals, and much more safe and effectual than *Drams* or strong *Cordials*, which are commonly used for that Purpose. Some Persons of weak tender *Nerves*, fall into *Lowness* and *Trembling* upon using either of these Liquors with any Freedom, from their too great *Quantity*, or their *Irritation* on the tender and delicate *Fibres* of the Stomach. Such ought carefully to avoid and abstain from them, as from *Drams* and *Drops*. But I can never be of their Opinion who ascribe the Frequency of *Scurvy*, *Vapours*, *Low-spiritedness*, and *nervous* Distempers, now, to what they were in the Days of our *Forefathers*, to the Custom of Drinking more frequently and freely of these *foreign Infusions*. The Cause is not *adequate* to the Effect; nor indeed has any *Analogy* to, or *Connexion* with it. We know that warm Water, will most of any Thing promote and

and assist *Digestion* in weak Stomachs and tender *Nerves*. And by this alone I have seen several such Persons recover to a Miracle, when *cold Mineral Waters*, *Bitters*, *Cordials* and *Drams*, have done rather Hurt than Good. And *Tea* is but an *Infusion* in Water of an *innocent* Plant : *Innocent*, I say, because we find by its Taste it has neither *poisonous*, *deleterious* nor *acrimonious* Qualities ; and we are certain from its Use in the Countries it comes from, (which are larger than most of *Europe*) that they receive no Damage from it, but on the contrary, that it promotes both *Digestion* and *Perspiration*. The Argument from its *relaxing* the Coats of the Stomach and Bowels by its *Heat*, is of no force. For unless it be drunk much hotter than the Blood itself, it can do no hurt that way : And we see the *Bath Guides*, who dabble in Water almost as *hot* as *Tea* is ever drunk, a great Part of the Day, and for one half of the Year at least, are no ways injured by it ; except when they drink *strong Liquors*, too freely, to quench the Thirst it raises. However, I should advise those who drink *Tea* plentifully, not to drink it much *hotter* than *blood warm* ; whereby they will receive all its *Benefit*, and be secure against all the Harm it can possibly do. As to *Chocolate*, I am of opinion, it is too hot and heavy, for *valetudinary* Persons : and those of weak *Nerves*. I have before observed, that *Nuts* pass through the *alimentary* Passages untouched ; and tho' they may part with some of their more *volatile* Particles, yet, I doubt if they can afford much nourishment to Persons of *weak Digestions*. Some say, *Chocolate* gives them an Appetite ; the meaning of which may be, that when they have a good Appetite for their *Breakfast*, it is not unlikely it may continue all the Day : But I am of opinion, 'tis a *false* and *hysterical* Appetite, such as sharp Wines, and sharp Humours in the Stomach give. For *fat* and *oily* Things, such as all Nuts are, are hard to digest, and lie long in the Stomach, for reasons I have already explain'd : It may lubricate and sheath against the *Irritation* of *salt* and *sharp Humours* in the Bowels, and therefore may be good in the *Colicks* and *Gravel* of those of strong and stout Digestion ; but can never be good Food for those of *weak Nerves* and *poor Constitutions*. Nothing is so light and easy to the Stomach, most certainly, as the *Farinaceous* or mealy *Vegetables* ; such as

Pease, Beans, Millet, Oats, Barly, Rye, Wheat, Sago, Rice, Potatoes, and the like; of some of which on Milk or Water, I should ever advise the Valetudinary, and those of weak Nerves, to make their two lesser or secondary Meals. Tobacco is another foreign Weed, much in use here in Britain, though not among the best, yet among the middle and inferiour Ranks of the People: For those of gross and Phlegmatick Constitutions, who abound in serous and watry Humours, who are subject to Coughs, Catarrhs, and asthmatick Indispositions; who labour under violent Tooth-achs, or are troubled with Rheums in their Eyes; who have cold and waterish Stomachs, and live fully and freely, both Smoaking and Chewing is a very beneficial Evacuation, drawing off superfluous Humours, Crudities, and cold Phlegm, provided they carefully avoid swallowing the Smoak, or the Juice; and drink nothing, but rinse their Mouths with some watry Liquor after it, and spit it out, But to thin, meagre, and helick Constitutions, it is highly pernicious, and destructive; heating their Blood, drying their Solids, and defrauding the Food of that Saliva, which is so absolutely necessary towards Concoction. Snuffing the Leaves, or the grosser Cut in a Morning, will readily promote a Flux of Rheum by the Glands of the Nose; and will be of good use, to clear the Head and the Eyes. But the ridiculous Custom, of perpetually sucking in sophisticated Powders, and other Foreign Drugs sold for Snuff, cannot but be prejudicial both to the Eyes, and even to the Stomach; at least, if we believe the Reports of those who say they have brought it up from thence.

§. 19. I have endeavour'd to assist the Reader, with some Observations and Reflections, to enable him towards determining the Quantity and Quality of his solid Food, necessary either to prevent or cure chronical Distempers. It may not be amiss, here to make some Reflexions also on the fit Proportion of Drink proper for that purpose; As the Food is, so must that be, various and uncertain with regard to the Age, Size, Labour, and Constitution of the Person, and the Season of the Year. I have offer'd to limit the Quantity of strong Liquors, fittest to preserve Health and lengthen out Life in general, to a Pound or Pint, and that of the middling

middling Kind. But the *Sickly*, the *Aged*, and those who would cure a *chronical* Distemper, must even abate of *this* Quantity. The only remaining Question, is about the Quantity of *Water*, or watry Liquors, proper to be mix'd with this *strong* Liquor, or drunk by itself: For in this also, though in itself harmless and innocent, yet there is a *Choice* and *Preference*; because, too much *Water* will only serve to *distend* and *swell* up the Vessels, and wash off some of the finer and more nutritious parts of the *Chyle*; and too little, will not be sufficient to dilute the *solid Food*, or to make the *Chyle* *thin* and *fluid* enough, to circulate through the *fine* and *small* Vessels. I will suppose my *Patient* to deal in no other *Cookery*, but *Roasting* and *Boiling*; and that he eats only *fresh* Meat. *Boiling* animal Food, draws more of the *rank*, *strong*, Juices from it, and leaves it less *nutritive*, more *diluted*, *lighter*, and *easier* of Digestion. *Roasting* on the other hand, leaves it fuller of the *strong* nutritive Juices, *harder* to digest, and wanting more *Dilution*: Those therefore, who must have full grown and *adult* animal Food, ought to eat it boiled, and *well* boiled too; if their Digestion be but weak. They who can live on *young* animal Food, (which is best for weak Stomachs,) ought to eat it *roasted*, but must lessen the Quantity, in respect of the same Food *boiled*; but they must dilute it more: For as *roast* Meat has a better Flavour, and more Nourishment, so it lies less *flabby* on the Stomach, and does not so readily *slip* from, or disappoint the *Action* of *Grinding*, which has some share in *Digestion*, both *primary* and *subsequent*: But it will want more *Dilution*, with a watry *Menstruum*, to soften its more *rigid* and *crisp* Fibres. If therefore, the whole Weight of the solid Food, in twenty four Hours, be supposed a *Pound* and a *Half*, then *three* Pounds of Liquor, that is, one of strong Liquor, and two of some aqueous Fluid, will in a Medium, be sufficient to dilute it abundantly. For thus there will be two Particles of a Fluid, to one solid Particle; which abating the solid Parts thrown off by *Siege*, will suffice to make the *Chyle* abundantly thin, to circulate through all the *fine* Channels, whose *Diameters* are *larger* than *that* of the solid Particle, the principle End of its *Thinness* and *Fluidity*. More than this, would but *distend* the Vessels, and carry off the *finer*

Parts of the *Chyle* by *Water* or *Perpiration*; for we constantly find *both these* encreased by an *overdose* of Fluids: And less would not sufficiently dilute their Food. I should advise those therefore, who have *weak* Stomachs, or *relaxed Nerves*, to mix their Wine with the above named quantity of boiled Water, with a burnt Crust, at least *Blood-warm*, and to drink it after their Meal is over, if they can do it with ease, rather than in the Time of Eating: For the more *spirituous* and most nourishing Parts of the Food, will readily run off, without much *Dilution*; and it will be the *grosser* and *harder* remaining Part, that will want it most. And if some time after their great Meal, they find their Stomack loaded, the Food rising, *hard Belching*, *Heart-burning*, or much *Tawning*, to swill down and dilute it with milk warm, light *Green-Tea*, or warm Water, rather than to run to *Drams* and *Cordials*, the usual, but most pernicious *Antidote* in such Cases. And upon great and heavy *Oppression*, much trouble and great struggle in the Digestion, to have recourse to *Carduus* or *Comomile-Flower Tea*, to bring it up, rather than to trespass in these *poisonous* and *caustick* Liquors; which, though they may at present lessen the suffering, and hurry on the *first Concoction*; yet make them dearly pay for it, when the *unconcocted* load of *Cru-dities* comes to pass by *Siege* or *Perpiration*, either in *Colicks*, *Gripes*, *Vapours*, and *Oppression* of Spirits; or by a general *Disability* and *Rheumatick Stitches* and Pains.

§. 20. Upon the Head of *Cordials* mentioned in one of the foregoing *Articles*, I cannot forbear setting down *one*, whose Virtues and Efficacy I have long tried, and have never found it fail, when any thing would succeed: And I recommend it (to be kept by them) to all *those*, who are liable to *low Spirits*, *Faintings*, *Oppressions*, *Sickness* at the Stomach, *Head aches*, and *Vapours*; and also to those who wanting to exert themselves in any business of consequence, need a *Flow of Spirits* for some short time, for that purpose; or indeed upon any sudden accident arising of its own accord, out of the Habit itself; I think it a kind of an *universal Remedy*, but never to be used, but upon such occasions; because, Use may weaken it, if not extinguish its Vertue.

Take

'Tis thus,

Take of simple *Camomile-Flower Water*, six Ounces; *Compound Gentian*, and *Wormwood Waters*, each an Ounce and a Half; *Compound Spirit of Lavender*, *sal Volatile*, *Tincture of Castor*, and *Gum Ammoniack* dissolved in some simple Water, each two Drams; *Tincture of Snakeweed*, and *Tincture of the Species Diambra*, each a Dram; the *Chymical Oils of Lavender*, *Juniper*, and *Nutmeg*, each ten Drops, mixed with a Bit of the Yolk of an Egg, to make the whole uniform; *Affafetida* and *Camphire* in a Rag, each half a Dram: But these may be left out by those to whom they are disagreeable.

Two, three or four Spoonfuls of this is a present Help in such Cases. It will keep six Months good.

General Rules for Health and Long Life, drawn from the Head of MEAT and DRINK.

1. **T**HE great Rule of Eating and Drinking for Health is to adjust the *Quality* and *Quantity* of our Food to our *digestive Powers*. The *Quality* may be judged by the following Rules.

2. Those *Substances* that consist of the *grossest Parts* are hardest of *Digestion*; the constituent *Particles* coming into more *Contacts*, and consequently adhering more firmly.

4. These *Substances* whose Parts are brought together with the greatest *Force*, cohere proportionably closer, than those that come together with a smaller * *i. e. Force*.
* *Momentum*.

4. *Salts* are very hard to be separated, because united by plain *Surfaces*, under which they are always comprehended. And in the last Stages of the *Circulation*, where it is slower, shoot readily into larger *Clusters*, and so are harder to be driven out of the *Habit*. From these we may easily infer, that (1.) Those *Vegetables* and *Animals* that come soonest to their full *Growth* are easier of *Digestion*, than those that are longer of attaining the State of *Maturity*. (2.) Those that are the *smallest* of their Kind, than the *biggest*. (3.) Those of a *dry, fleshy, and fibrous Substance*, than the *oily fat, and glutinous*. (4.) Those of a *white Substance*, than those of

a more *flaming* Colour. (5.) Those of a *mild, soft, and sweet*, than those of a *strong, poignant, aromatical, or hot* Taste. (6.) *Land-Animals*, than *Sea-Animals*. (7.) Those *Animals* that live on *Vegetables*, or other *light* Food, than those that live on other *Animals*, or hard and *heavy* Food. (8.) The Nourishment Nature has appointed for young *Animals*, is lighter than the *Flesh* of these *Animals* themselves.

5. All *cramm'd* Poultry and *stall-fed* Cattle, and even *Vegetables* forced by hot beds, tend more to *Putrefaction*, and consequently are more unfit for *human* Food, than those brought up in the natural Manner.

6. *Plain-dressed* Food is easier of Digestion, than what is *pickled, salted, baked, smoaked*, or any Way *high-seasoned*.

7. *Strong Men*, those of *large* Stature, and much *Labour*, and the Inhabitants of a *cold* and clear Air, require more Food than *Women, Children, the Weak, the Sedentary* and the *Aged*, and those that live in a *warmer* Climate, or *grosser* Air.

8. Nothing conduces more to *Health* and *Long Life*, than *Abstinence* and *plain Food*, with due *Labour*.

9. Where *Exercise* is wanting (as in *studious* Persons) there is the greater Need of *Abstinence*; for these, 8 Ounces of *animal*, and 12 of *vegetable* Food, in 24 Hours, is sufficient.

10. Most *chronical* Diseases proceed from *Repletion*; as appears from their being cured by *Evacuation*.

11. *Tender* Persons ought to use as much *Abstinence*, as they possibly can: And, if they neglect it, their only Relief is from frequent *Stomachick* and *Family-Purges*.

12. A *plain* Rule for judging of the *Quantity* is, not to eat so much as indisposes for *Business*.

13. A more *sensible* and *readier* one is, first by *Experience* to find out how much fits one, so as to be *lightsome* and *healthy* under it, and ever after to judge the *Quantity* by the *Eye*; Nature requiring therein no *mathematical* Exactness.

14. *Pork* and *Fish* are not fit Food for the *Studious* and the *Tender*.

15. *Water* is the most natural and wholesome of all *Drinks*, quickens the Appetite, and strengthens the *Digestion* most.

16. *Strong* and *spirituous* Liquors freely indulged, become a certain, tho' a slow *Poison*.

17. There

17. There is no Danger in leaving them off all at once; the *Play* for continuing them being false and groundless.

18. The best *strong Liquor* for *weak* and *studious* People is *Wine*; the best *Quantity*, a Pint in 24 Hours; and the best Way of drinking it is, three Glasses *with* and three *without* Water.

19. The *middling, light* Wines, *fully ripe*, and of a *due Age*, are preferable to the *strong* Wines.

20. Strong Liquors do not prevent the Mischiefs of a *Surfeit*, nor carry it off, so safely as *Water*, tho' they seem to give present *Relief*.

21. The frequent Use of *Spirits* in *Drams* and *Cordials*, is so far from curing *Low-spiritedness*, that it increases it, and brings on more *fatal* Disorders.

22. And even when they are diluted with *Water*, in *PUNCH*, the *Quantity* taken down at once, and the *Addition* of a corroding *Acid*, produce equally *pernicious* Effects in human Constitutions.

23. *Malt Liquors* (excepting clear small Beer, of a *due Age*) are extremely hurtful to *tender* and *studious* Persons.

24. *Coffee* is only an *Infusion* of a kind of *Calx*, and has the Effects of an *absorbent* Medicine; and so may be of some Service to *watry* Stomachs, if *moderately* used.

25. *Green Tea* is a good *Diluter* of the Food, as it is an agreeable, *warm*, *small* Liquor: But *Bohea* is too heavy for the *Stomach*.

26. *Chocolate* (as all Nuts else) is so heavy and hard of *Digestion*, that it can never be fit for the Stomachs of *weak* and *tender* People.

27. *Smoaking Tobacco*, without drinking after it, *Chewing* and *Snuffing* the gross cut *Leaf* in a Morning, are useful to *flegmatick* Constitutions; but to *dry* and *lean* Habits they are *pernicious*. *Snuff* is just good for nothing at all.

28. The proper *Quantity* of *watry* Liquors in 24 Hours, to those that live regularly, is *two Points*, (as that of *strong* Liquor is *one* Pint) which is best drank *warm*, and rather *after* than in the Time of *Eating*.

29. The Form of a *Cordial* fit to be kept in private Families, as a present and certain Relief, for sudden *Qualms*, *Faintness*, *Sickness*, or *low Spirits*; but never to be taken but in Cases of Necessity.

C H A P.



C H A P. III.

Of SLEEPING and WATCHING.

§. I. **T**HE next general *Head* in order, is our *Sleeping* and *Watching*. All Bodies by their Actions upon one another, and by the Action of the circumambient Bodies, are liable to be impaired and wasted: And all *animal* Bodies, from an *active* and self-moving *Principle* within them, as well as from the *Rubs* of Bodies without them, are constantly throwing off some of their superfluous and decayed Parts; so that animal Bodies, are in a perpetual *Flux*. To restore this *Decay* and *Wasting* of *animal* Bodies, *Nature* has wisely made alternate *Periods* of *Labour* and *Rest*, *Sleeping*, and *Watching*, necessary to our Being; the one for the *active* Employments of Life, to provide for and take in the *Materials* of our *Nourishment*; the other, to apply those *Materials* to the proper wasted Part, and to supply the *Expences* of Living. And it seems as improper in the *Order of Nature*, to disturb the *animal Functions* in the time of *Sleep*, by any other Employment, than that of the *secondary Concoctions* (as they are called;) *i. e.* the applying the *Nourishment* to the decayed Parts, to recruit the *Blood*, perfect the *Secretions*, and to lay up plenty of *Spirits*, or (to speak more *Philosophically*,) to restore the weakened *Tone* of *nervous Fibres*; that is, in short, to restore the *Decays* of *Watching* and *Action*: This I say, is as improper, as it would be (were it possible,) to eat or drink, or make provision for the *Necessities* of Life, in the time of *Sleeping*. From hence is evident, the *Absurdity* of heavy, various, and *luxurious* Suppers, or of going to Rest till many Hours after such a Meal; which must otherwise break in upon the *Order of Nature* and the due and appointed Times of *Sleeping* and *Watching*. Wherefore, I advise the *Valetudinary*, the *Studious*, and the *Contemplative*, either to make no Suppers, or only of *vegetable* Food; and to take a due Time for *Watching* after them.

§. 2. There is nothing more certain, than that (abstracting from *acute Cases*) our *Sleep* is *sound, sweet, and refreshing*, according as the *alimentary Organs*, are easy, quiet, and clean. If any one not suffering under any *Disease*, is disturbed in his *Sleep*, 'tis certain his *Stomach* is filled with *Food*, or *Crudities*; or his *Guts* filled with *Wind*, *Choler*, or *superfluous Chyle*: And those restless Nights, and the Difficulty of going to *Sleep*, which are generally ascribed to *Vapours*, are entirely owing to these Causes; though they be not so *strong*, as to become sensible; for then *Pain* is added to *Watching*, and they are felt. And upon complaints of such restless Nights, I never once failed, upon enquiry of finding the true Cause in the *Diet*, of the preceding Day, or of some few Days before; and constantly have discovered that some Error in *Eating* and *Drinking*, either in *Quantity* or *Quality* has produced them. I have been astonished to see *hypochondriacal* and *hysterical* People, restless all Night, tossing and tumbling till towards Morning, then dropping asleep till late Hours, awake *heavy, oppressed, and unrefreshed*, complain of being *bag-ridden, tired and wearied*, as if they had been *whip'd, spur'd, lash'd, and beaten thro' all the Watches of the Night*; rise with *foul mouths*, and white Tongue, Belchings, Yawnings, Coughing, Spitting, or Reaching and Heaving, without *Appetite, Spirits or Life*, all the Day-time; begin to live and breath, become *cheerful* and hungry, about ten, eleven, or twelve a clock at Night; eat a *heartly, various, and luxurious* Supper; drink a *cheeruping* Cup of the best, become as merry as *Crickets*, and long to sit up later; at last, tumble to Bed, and repeat the same *Farce* over again. The Reason of all this Complaint, is the Load on the *Stomach*, that will not suffer them to rest, till 'tis got off. The sharp and crude Humours, *twitching* and *twining* the *nervous Fibres*, and Coats of the *Bowels*, become like so many *Needles* and *Pins*, constantly running through them; though not always with sensible pain: The *unconcocted Chyle* stopping or circulating *slowly, first* in the *Bowels*, then in the *smallest Vessels*, begets these *Convulsions, Flatus, Night-Mares, and Oppressions of Spirits*. So that the secondary Digestions are not over till next Evening, (hence their want

of *Appetite* :) And when these are finished their *Stomachs* come, and their *Spirits* flow; and thus the perpetual Round is carried on. Did they but follow the *Dictates of Nature*, go to Bed for some days with a *light Vegetable*, or no *Supper* at all, and bear the Inconveniences thence arising; their *Appetites* would come in due season, and they would quickly find the Truth of the Aphorism of the *Schola Salernitana*.

* i.e. That your
Sleep may be
sweet, let your
Supper be light.

* *Somnus ut sit levis, sit tibi Cane brevis.*

§. 3. The Seasons for *Sleeping* and *Watching*, which Nature seems to point out to us, at least in these our *Climates* near the *Tropick*, are the *Vicissitudes* of *Day* and *Night*. Those *Damps*, *Vapours*, and *Exhalations*, that are drawn up into the *higher Regions*, and are so rarified by the Heat and Action of the *Sun*, as to become *innocent* or very weak in the *Day-time*; are *condensed*, sink low, near the *Surface* of the *Earth*, and are perpetually drooping down in the *Night Season*; and consequently must be *injurious* to those *tender Persons*, that *unnaturally* watch in that Season; and must necessarily obstruct the *Perspiration*, which the *Activity* of *Watching*, and the *Motion* of *Labour* promotes. I have already shewn, that our Bodies *suck* and *draw* into them, the good or bad qualities of the *circumambient Air*, through the Mouths of all the *perspiratory Ducts* of the *Skin*. And if we were to view an *animal Body* with a proper *Glass*, it would appear with an *Atmosphere* quite round it, like the *Steam* of a boiling *Pot*. Now we may easily conceive, what injury a *Constitution* may receive, not only by stopping such a perpetual *Discharge* of *Superfluities*, but also by forcing into the *Habit*, by the *Air's Weight* and *Pressure*, those *noxious Fumes* and *Vapours*, that are perpetually falling near the *Surface* of the *Earth*, in the *Night-time*. Your true *Topers* are so sensible of this, that by *Observation* they have gathered it to be more safe for their *Health*, and better for prolonging their *Lives*, to get *drunk* betimes and go to Bed, than to sit up and be *sober*.

§. 4. On the contrary, the *Heat* of the *Sun* in the *Day-time*, by its *Action* on human Bodies, the very *Light*, and free

free *Air*, and the *Motions* of things about us, disturbing the Quiet of the *Air*, must necessarily disorder the *equable* Course of the *Perspiration*, the *Tenour* of the *secondary Concoctions*, and the *Tranquillity* of the *Spirits* so necessary to *Rest* and *Quiet*. So that nothing seems more directly pointed out to us by *Nature*, than the *Day* for *Labour*, and the *Night* for *Rest*: And this without taking in the Consideration of the Necessity of the *Sun's* Light for the ends of *Labour*, and providing the *Necessaries* of Life. Some *Animals* that are exceeding tender, are directed by *Nature* to alternate *Periods* of *Watching* and *Rest*, not twice in 24 Hours, but twice in the Year, viz. *Summer* and *Winter*; such as *Swallows*, *Bats*, and many sorts of *Insects*, who sleep all the *Winter*, and watch all the *Summer*. So consistent is *Nature*, in appointing the *brightest* and most *enlightened* Parts of our Lives for *Action*, and the *darkest* and most *inclement* for *Rest*. Not but that *robust Constitutions* (as well as *Animals* fitted by *Nature* for different ways of living) may by *Custom*, get the better of these *natural Appointments*: But I write for the *Valetudinary*, the *Studios*, and the *Contemplative*.

§. 5. I advise all such, if they would preserve their *Health* and *lengthen* out their Days, to avoid as much as is possible *evening Dews*, *nocturnal Studies*, and *unseasonable Watching*; in *Summer* to go to Bed with the *Sun*, and in *Winter* to rise at least by *Break of Day*. Those who live *temperately*, will necessarily *Sleep* but *little*: But to recompence that, their *Sleep* will be much more *sound*, *refreshing*, and fruitful of *Chearfulness* and *free Spirits*, than that of those who live more *freely*. For as I have before said, the *Quantity* of *Sleep* will always be in proportion to the *Quantity* of *Eating* and *Drinking*. *Valetudinary*, *Studios*, and *Contemplative* People, ought to go to Bed by *eight*, *nine*, or *ten* at farthest, and rise by *four*, *five*, or *six*, by which they will have *eight Hours* a Bed; and that is sufficient for any Person, not under an *acute*, or the sharp Fits of a *Chronical* Distemper.

§. 6. Nothing can be more prejudicial to *tender* Constitutions, *studious* and *contemplative* Persons, than lying long a Bed of *lolling* and *soaking* in *Sheets*, any time after one is distinctly awake,

awake, or has slept a due and reasonable Time : It necessarily *thickens* the Juices, *enervates* the Solids, and *weakens* the Constitution. A free open *Air* is a kind of a *cold Bath*, especially after rising out of a warm Bed ; and consequently makes the *Circulation* brisker and more compleat, and *braces* up the Solids, which lying a Bed *dissolves* and *soaks* in *Moisture*. The *erect Posture*, and the *Activity* of Watching, make the *Perspiration* more plentiful, and the gross *Evacuations* more readily thrown off. This is evident from the *Appetite* and *Hunger*, those that rise *early* feel, beyond that which they get by lying *long* a Bed. Add to all these the Influence of the *fresh, benign, Morning Air*, the retreating of all the *noxious Damps* and *Vapours* of the Night, together with the Clouds and Heaviness, that are thrown upon the *Brain* from Sleep ; and lastly, that *Chearfulness* and *Alacrity* that is felt by the Approach or Presence, of that *glorious Luminary* the *Sun*, which adds a new Force to the *Heart*, and a *Spur* to the *Spirits*.

§. 7. All *Nations* and *Ages* have agreed that the *morning Season* is the proper Time for *speculative* Studies, and those Employments that must require the *Faculties* of the *Mind*. For then the *Stock* of the *Spirits* is undiminished, and in its greatest Plenty, the *Head* is clear and serene, the *Passions* are quieted and forgot ; the *Anxiety* and *Inquietude* that the *Digestions* beget in the *nervous System*, in most tender Constitutions and the *Hurry* the *Spirits* are under after the great Meal, are settled and wrought off. I should advise therefore those who are of a weak relaxed State of *Nerves*, who are subject to *hypocondriacal* or *hysterical* Disorders, whose Professions lead them to much Use of their *intellectual Faculties*, or who would indulge *speculative* Studies, to go early to Bed and to rise betimes ; to employ their morning Hours in these *Exercises*, till eleven a Clock, then to take some agreeable *Breakfast* of *vegetable Food* ; to go on with their *Studies* and *Professions* till *three, four, or five*, as their *Spirits* will hold out, and then to take their *great Meal* of *animal Food* ; all the rest of the Day to throw off all *Study* and *Thought*, divert themselves agreeably in some innocent *Amusement*, with some gentle bodily *Exercise* ; and as soon as the *Digestion* is over, to retire and provide for going to Bed, without any

any farther supplies, except it be a Glass of fair Water, or warm Sack-Whey. But the *Aged* and *Sickly* must go sooner to Bed and lye longer, because *Age* and *Sickness* break rest, and the stiffen'd and hardened Limbs of the Antient become more *pliant* and *relaxed* by much Sleep, a *supine* Posture, and the *Warmth* of the Bed.

*Rules for Health and Long Life drawn from
the Head of SLEEP and WATCHING.*

1. **T**HE *Valetudinary*, the *Sedentary*, and the *Studios*, should eat very light, or no *Supper*; if any, it ought to be *vegetable* Food; neither ought they to go soon to Bed, after any *Supper* whatsoever.

2. Going to Bed on a *full Stomach*, and *Wind* and *Crudities* somewhere in the *alimentary* Passages, is the Cause of the want of due Rest, which is *sound* and *refreshing*, always in *Proportion* to the *Emptiness* and *Cleanness* of these *Passages*, and their *Vacuation* from their proper Office of *Digestion*: And this is the Cause of the Want of *kindly* and *refreshing* Rest, in *hypocondriacal* and *hysterical* People.

3. *Watching* by Night and *Sleeping* by Day, is of the most pernicious Consequence to *Health* and *Long Life*; and plainly contrary to the Indications of *Nature* and the *Constitutions* of our Bodies.

4. The *Valetudinary*, *Sedentary*, and *Studios*, ought carefully to avoid evening *Dews*, nocturnal *Studies*, and unseasonable *Watching*; go to Bed by *eight*, *nine*, or *ten*, and rise proportionably by *four*, *five*, or *six*; unless actually under a *Fit* of *Sickness*.

5. Nothing is more prejudicial to *tender* Constitutions, than lying long a Bed, indulging a *lethargical* and drowsy Sleep, or *lolling* or *loitering* awake; as appears by their *Heaviness*, and want of *Appetite*, upon doing so; and their good *Stomachs*, *Cheerfulness*, and *Freedom* of *Spirits*, when they rise early.

6. The most advantageous manner for the *Tender*, *Sedentary*, and *Studios*, to bestow their Time, on account both of their *Health* and *Studies*, is to go early to Bed, rise *betimes*;

times, go about their Studies till *eleven*, taking a light *vegetable* Breakfast; prosecute them till about *four* in the Afternoon, then to take their great Meal of *animal* Food, and after that to employ the rest of their Time in some *innocent Amusement*, or gentle bodily *Exercise*; to retire betimes, to prepare for going to Bed, taking no farther Nourishment, except a Draught of Water or warm *Sack-Whey*, which will be particularly useful to those who labour under *Stone* and *Gravel*.



CHAP. IV.

Of EXERCISE and QUIET.

§. I. **W**E proceed, in the next Place, to the Consideration of *Exercise* and *Quiet*, the due Regulation of which, is almost as necessary to *Health* and *Long Life*, as *Food* itself. Whether we were so made before the *Fall*, as to live in *intire* Health, in a rigidly, *sedentary* and *contemplative* Life, is a *Speculation* of no great *Consequence*, nor easily determined in our present *Situation*; for there is no certain *Analogy* between Things as they now are, and as they might have been then. As there happen'd an *intire Revolution* in the *Complexion* and *Qualities* of the *Minds* of the *First Pair*; so, to me, there appear, to be evident *Indications* of a designed Change and *Alteration* of the *material World*, and the Nature of the *Animals* and *Vegetables*, which subsist on this *Globe*, from what they were when *GOD* pronounced every Thing *Good* that he had made. Nor seem the *Cælestial Bodies* to have escaped, so far as they regard us. Whatever be in this, the Passage where God tells *Adam*,
 * *Gen. chap. iii. v. 19.* * *That in the Sweat of his Brow he shall eat Bread*, seems to be the *Injunction* of a *salutary Penance*; that is, Not merely a *Punishment*, but also a *Remedy* against the Disorders his Body would be liable to in this *new State* of the Creation, and against the poisonous Effects of the *Forbidden Tree* he had eaten the Fruit of. I am the more confirmed in this Belief, that I observe, the *absolute Necessity*

Necessity of *Labour* and *Exercise*, to preserve the Body any Time in due plight, to maintain *Health*, and lengthen out *Life*. For, let whatsoever *Diet* be pursued, however adjusted, both in *Quantity* and *Quality*; let whatever *Evacuations* be used to lessen the *Malady*, or any * *Succedaneum*

be proposed, to prevent the ill Effects; our Bodies are so made, and the *Animal Oeconomy* now so contrived, that without due *Labour* and *Exercise*,

* i. e. Equivalent.

the *Juices* will thicken, the *Joints* will stiffen, the *Nerves* will relax, and on these Disorders, *Chronical Distempers*, and a crazy old *Age* must ensue. Nor is this necessary only in the colder *Climates*, and where the Food is *gross*, but even in the warmest *Climates*, and where the Food is *lightest*. For though the *Warmth* of the Air may keep the *Perspiration* free and open, or rather, where it is very great, promote *Sweating*; yet, at the same Time, and by Consequence, it will thicken the Fluids, and relax the Fibres; to prevent both which, *Exercise* is absolutely necessary: but in such a Climate it ought to be gone about in the Cool of the Day. And tho' *light Food* may, in a great measure, prevent the *Thickening* of the Fluids, yet it cannot do it sufficiently without *Exercise*; nor can it at all keep the Fibres in due *Tension*; for to that Purpose *Exercise* is absolutely necessary. Nay, the joint Power of warm Air, and *light Food*, cannot supply the Place of *Exercise* in keeping the *Joints* pliant and moveable, and preserving them from growing *resty* and *stiff*.

§. 2. I have sometimes also, indulg'd a Conjecture, that *Animal Food*, and *Made or Artificial Liquors*, in the *Original Frame* of our Nature, and Design of our *Creation*, were not intended for *Human Creatures*. They seem to me, neither to have these strong and fit *Organs* for digelling them (at least such as *Birds* and *Beasts* of Prey have, who live on *Flesh*;) nor, naturally, to have those voracious and brutish Appetites, that require *Animal Food*, and strong *Liquors*, to satisfy them; nor those cruel and hard Hearts, or those diabolical Passions, which could easily suffer them to tear and destroy their *Fellow Creatures*; at least, not in the first and early Ages, before every Man had corrupted his Way, and God was forced to exterminate the whole Race, by an universal Deluge, and was also obliged (that the *Globe* of the *Earth* might not,

not, from the long Lives of its Inhabitants, become a *Hell*, and a *Habitation* for incarnate *Devils*) to shorten their Lives from 900 or 1000 Years, to 70. He wisely foresaw, that *Animal Food*, and *Artificial Liquors*, would naturally contribute towards this *End*; and indulg'd, or permitted, the *Generation* that was to plant the *Earth* again after the *Flood*, the Use of these for *Food*, knowing that though it would shorten the *Lives*, and *plate a Scourge of Thorns* for the Backs of the *Lazy* and *Voluptuous*, it would be cautiously avoided by those who knew it was their *Duty* and *Happiness* to keep their *Passions low*, and their *Appetites* in *Subjection*. And this very *Æra* of the *Flood*, is that mentioned in *Holy Writ*, for the Indulgence of *Animal Food* and *Artificial Liquors*, after the *Trial* had been made, how insufficient alone, a *Vegetable Diet* (which was the first *Food* appointed for *Human-kind*, immediately after their *Creation*) was, in the *Long Lives* of *Men*, to restrain their *Wickedness* and *Malice*; and after finding, that nothing but *shortning* their *Duration* could possibly prevent the *Evil*. 'Tis true, there is scarce a Possibility of preventing the destroying of *Animal Life*, as Things are now constituted, since *Insects* breed and nestle in the very *Vegetables* themselves, and we scarce ever devour a *Plant* or *Root*, wherein we do not destroy innumerable *Animalcules*. But besides what I have said, of *Nature's* being quite altered and changed from what was *Originally* intended, there is a great *Difference* between *destroying* and *extinguishing* an *Animal Life* (which otherwise might subsist many Years) by *Choice* and *Election*, to gratify our *Appetites* and indulge *Concupiscence*; and the *Casual* and *Unavoidable* crushing of those, who perhaps, otherwise, would die within the *Day*, or at most, the *Year*, and obtain but an inferior kind of *Existence* and *Life* at best. Whatever be in this *Conjecture*, 'tis evident to those who understand the *Animal Oeconomy*, and the *Frame* of *Human Bodies*, together with the *History*, both of those who have lived *Abstemiously*, and of those who have lived *Freely*, that *indulging* in flesh *Meats*, and strong *Liquors*, inflames the *Passions*, and *shortens* *Life*, begets *Chronical* *Diltempers*, and a *Decrepid Age*, as the *History* of the *Life* of *Cornaro* manifests to a *Demonstration*.

§. 3. Of all the *Exercises* that are, or may be used for Health, (such as, *Walking*, *Riding*, a Horse-back, or in a Coach, *Fencing*, *Dancing*, playing at *Billiards*, *Bowls*, or *Tennis*, *Digging*, Working at a *Pump*, Ringing a Dumb Bell, &c.) *Walking* is the most *natural*, as it would be also the most *useful*, if it did not spend too much of the *Spirits* of the *Weakly*. *Riding* is certainly the most *Manly*, the most *Healthy*, and the least *Laborious*, and *Expensive* of *Spirits*, of any; shaking the whole *Machines*, promoting an universal *Perspiration* and *Secretion* of all the *Fluids* (to which may be added, The various *Changes* of the *Air*, thro' which they so quickly pass, every *Alteration* of which, becomes, as it were, a new *Bath*) and thereby, variously *twitching* the *Nervous Fibers*, to brace and contract them, as the *new Scenes* amuse the *Mind*. Those who cannot *ride*, must be carried in a *Coach* or *Litter*, which is the best *Exercise* for the *Lame* and *Crazy*, and the only one proper for *Old* and *Decrepit* Persons, as well as those that are so *Young*, that they are not able to manage their own *Exercise*. The *Home Exercises*, such as playing at *Tennis* and *Billiards*, *Dancing*, *Fencing*, and the like, ought to be followed only when the *Season* forbids being *Abroad*; for being in the *Air*, contributes much toward the Benefit of *Exercise*. 'Tis beautiful to observe that earnest *Desire*, planted by *Nature*, in *Young* Persons, to *romp*, *jump*, *wrestle*, and *run*, and constantly to be pursuing *Exercises* and *Bodily Diversions*, that require *Labour*, even till they are ready to drop down; especially the healthier Sort of them: So that sitting, or being *confined*, seems to be the greatest *Punishment* they can suffer, and *imprisoning* them for some Time, will much more readily correct them than *Whipping*. This a wise *Contrivance* of *Nature*; for thereby, their *Joints* are render'd *pliable* and *strong*; their *Blood* continues sweet, and proper for a full *Circulation*; their *Perspiration* is free, and their *Organs* stretched out, by due Degrees, to their proper *Extension*.

§. 4. It is also very agreeable to observe, how the several different *Organs* of *Labouring* Men are strengthen'd, and render'd *Brawny* and *Nervous*, as they happen to be most employ'd in their several *Vocations*, let them be otherwise ever so *small* or *weakly*. The *Legs*, *Thighs* and *Feet* of

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Chairmen;

Chairmen; the *Arms* and *Hands* of *Watermen*; the *Backs* and *Shoulders* of *Porters*, grow *thick*, *strong*, and *brawny* by *Time*. 'Tis certain, that speaking *strong* and *loud*, without *overstraining*, will *strengthen* the *Voice*, and give *Force* to the *Lungs*. Our *Nails* and *Hair*, the more they are *cut* and *shaved*, the more they grow. And we may promote any one *Evacuation* so far, as to weaken and starve all the rest. Using any *Organ* frequently and forcibly, brings *Blood* and *Spirits* into it, and so makes it grow *Plump* and *Brawny*. And if due *Pains* were taken by the *Labour* proper to them, the *Organs* of all the *Functions* of the *Animal Oeconomy* might be *strengthen'd* and kept in due *plight*.

§. 5. Therefore, to the *Asthmatick*, and those of weak *Lungs*, I should recommend *Talking much* and *loud*, even by themselves, walking up an easy *Ascent*, and when any degree of *Weariness* warns them, to sit and rest, 'till they are easy, and then to return to their *walking* again, and so to encrease it every *Day*, 'till they are able to walk a *reasonable Distance*, in a *reasonable Time*. To those who have weak *Nerves* and *Digestion*, and to those who are much troubled with *Head-aches* (most of all which arise from the ill State of the *Stomach* and *Bowels*) I should recommend riding on *Horseback* as much as possibly they could, in the clearest and driest *Air*, and to change the *Air* daily, if possible. To those who are troubled with the *Stone* or *Gravel*, to ride much over rough *Causeways* in a *Coach*. To those that have *Rheumatick Pains*, to play at *Billiards*, *Tennis* or *Cricket*, till they sweat plentifully, and then go immediately into a warm *Bed*, and drink liberally of some warm thin *Liquor* with *Ten Drops* of *Spirit of Sal Armoniac* or *Harts-horn* in each Draught, to encourage the *Sweating*. To those who have weak *Arms* or *Hams*, playing two or three *Hours* at *Tennis*, or at *Foot-ball*, every *Day*. To those who have weak *Backs* or *Breasts*, ringing a *Bell*, or working at a *Pump*. Walking thro' rough *Roads*, even to *Lassitude*, will soonest recover the *Use* of their *Limbs* to the *Gouty*; tho' *Riding* on *Horseback* or in a *Coach* will best prevent the *Dislemper*. But the *Studious* and the *Contemplative*, the *Valetudinary*, and those of weak *Nerves*, if they aim at *Health* and *Long Life*, must make *Exercise* a Part of their *Religion*, as it is among some of
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the *Eastern Nations*, with whom *Pilgrimages*, at stated Times, are an indispensable Duty, and where *Mechanical Trades* are learned and practised by Men of all Ranks. Those who have their Time in their own Hands, ought to have stated *Seasons* for *Riding* or *Walking* in a good *Air*, as indispensable, as those for going to *Dinner*, to *Bed*, or to *Church*. *Three Hours* for *Riding*, or *Two* for *Walking*, the one half before the great *Meal*, and the other before going to *Bed*, is the least that can be dispensed with: As the first Part begets an *Appetite*, the second helps on the *Digestion*. Those who are not Masters of their own Time, must take it when they can; but to be sure they ought to let no Opportunity of taking it slip.

§. 6. There are Three Conditions of *Exercise* to make it the most Beneficial that may be. *First*, That it be upon an *empty Stomach* (as, indeed, that is the proper Time for all *Medicinal Evacuations*) for thereby, the now *concocted* * *Crudities*, or those *Superfluities* Nature would be rid of, and has fitted, by going through the proper *Secretions*, for being *ejected*, but cannot throw off without foreign *Assistance*, will be readiest discharged. For, on a full Stomach *Exercise* would be too tumultuous, *precipitate* the *Secretions*, and throw off the sound Juices with the corrupted Humours. *Secondly*, That it be not continued to down-right *Lassitude*, *Depression* of Spirits, or a *melting Sweat*. The *First* will wear out the *Organs*, the *Second* spend the *Strength*, and the *Third* will only do *Violence* to the Natural *Functions*. *Thirdly*, Due Care is to be had after *Exercise*, to retreat to a *warm Room* and proper Shelter from the *Injuries* of the Weather, lest sucking into the walled Body, the *nitrous Particles* of the circumambient *Air*, they should *inflame* the Blood, and produce a *Rheumatism*, *Fever* or *Cold*. I might add a *Fourth Condition*, Joining *Temperance* to *Exercise*, otherwise the *Evil* will be as broad one Way, as 'tis long the other. For since *Exercise* will create a greater *Appetite*, if it is indulg'd to the full, the *concoctive Powers* will be as *unequal* to the *Load*, as they were before. But I pass that over, having sufficiently treated this Subject already.

* Coëta non cruda sunt evacuanda, Hippocrat.

§. 7. Under this Head of *Exercise*, I cannot forbear recommending *Cold-bathing*; and I cannot sufficiently admire, how it should ever have come into such *Disuse*, especially among *Christians*, when commanded by the greatest *Lawgiver* that ever was, under the Direction of *God's Holy Spirit* to his *Chosen People*, and perpetuated to us in the *Immersion at Baptism*, by the same *Spirit*, who, with *infinite Wisdom* in this, as in every Thing else that regards the *Temporal and Eternal Felicity* of his *Creatures*, combines their *Duty* with their *eternal Happiness*. *First*, The Necessity of a free *Perspiration* to the *Preservation of Health*, is now known to every Body, and frequent washing the Body in *Water*, cleanses the Mouths of the *Perspiratory Ducts* from that *Glutinous Foulness* that is continually falling upon them, from their own condensed *dewy Atmosphere*, whereby the *Perspiration* would be soon obstructed, and the *Party* languish. *Secondly*, The having the *Circulation, full, free and open, thro' all the Capillary Arteries*, is of great Benefit towards *Health and Long Life*. Now nothing promotes that so much as *Cold-bathing*; for by the violent and sudden Shock it gives to the whole *System* of the *Fluids*, from the *Circumference* inward towards the *Centre*, and the *Fluids* because *Reaction* is always equal and contrary to *Action*) springing back again from the *Centre* to the *Circumference*, a *Force* is raised almost ever sufficient to break thro' all the *Dams and Obstructions* of the *smallest Vessels*, where they mostly happen, and to carry the *Circulation* quite round. *Thirdly*, Nothing is so injurious, and so much prevents the Benefit of *Exercise* to *weak and tender Constitutions*, as sucking into their Bodies the *Nitrous and Humid Particles* of the *Air*, that is, *Catching of Cold*. Now nothing so effectually prevents this, as *Cold bathing*; as the *Nature* of the Thing shews, and *Experience* confirms: For if *Exercise*, to attenuate the *Juices*, and strengthen the *Solids*, be added to *Cold-bathing*, a new *Spring and Force* will be given to the *Blood*, both to drive out these *foreign and noxious Mixtures*, and to unite *Cuticular Scales*, which from the *Scarf-Skin*, so as to strengthen it for the future against such violent *Entries*.

§. 8. I should advise therefore, every one who can afford it, as regularly to have a *Cold Bath* at their House to wash their Bodies in, as a *Bason* to wash their Hands; and constantly, *two* or *three* Times a Week, *Summer* and *Winter*, to go into it. And those that cannot afford such *Conveniency*, as often as they can, to go into a *River* or *Living Pond*, to wash their Bodies. But this ought never to be done under the actual *Fits* of a *Chronical* Distemper, with a *quick Pulse*, *Head-ach*, *weak Lungs*, or a *foul Stomach*; nor ought they to stay in till they are *over-chill'd*. And in *Winter*, they ought to pursue their *Exercises* immediately after they come out; and those of tender *Nerves*, ought to pour *Basons* of Cold Water on their Head, or wash it well with a *dripping Sponge* before they go in. I cannot approve the *precipitant* Way of *jumping* in, or throwing the Head foremost into a *Cold Bath*, it gives too violent a Shock to Nature, and risks too much the *Bursting* some of the smaller Vessels. The Natural Way is, holding by the Rope, to walk down the Steps as fast as one can, and when got to the *Bottom*, bending their *Hams* (as Women do when they *Curt'sy* low) to *shorten* their Length, so as to bring their Heads a good Way under *Water*, and then *popping* up again to take Breath; and thus alternately for two or three Times, and out again, *rubbing* and *currying* well before they are dress'd. And this brings me to say something of another kind of *Exercise*.

§ 9 The *Flesh Brush* is an *Exercise* most useful for promoting a full and free *Perspiration* and *Circulation*; Almost every Body knows, what well *Currying* will do to *Horses*, in making them *sleek* and *gay*, *lively* and *active*; even so much, as to be worth half the *Feeding*. This it can no otherwise *effeetuate*, than by assisting Nature to throw off by *Perspiration*, the ** Recrements* of the Juices which stop the full and free *Circulation*, and by constant *Friction*, *Irritation* and *Stimulation*, to *allicite* Blood and *Spirits*, to the Parts most distant from the Seat of *Heat* and *Motion*, and so to *plump* up the *superficial Muscles*. The same Effect it would produce in other *Animals*, even *Human* Creatures themselves, if they were managed in the same Manner, with the same Care and Regularity. I should think it therefore, well worth
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* i. e. The grosser Parts.

the Pains of Persons of weak Nerves and Sedentary Lives, especially those threatned with Paralytick Disorders, to supply the Want of *Exercise* of other Kinds, with spending half an *Hour*, Morning and Night, in *Currying* and *Rubbing* their whole Body, more-especially their *Limbs*, with a *Flesh Brush*. And 'tis a Wonder to me, that *Luxury* has not brought *Cold-bathing* and *Currying* in Use, upon the *Animals* (especially those of them upon whom they can be so readily made Use of, such as *Oxen*, *Pigs*, *Veal*, *Lamb*, and all *Poultry*, which naturally delight in *Cold-bathing*) which are brought to the *Table*. For certain it is, that *Cleannefs* and due *Exercise* (of which *Currying* is one Part) would much contribute to make all *Animals* whatsoever, without Exception, healthier in themselves, fuller of *Juice* and *Spirits*, and, consequently, better Food for *Human* Creatures.

As to *Quiet*, the Conditions of *Exercise* being determined, there needs nothing to be said of it.

RULES for Health and Long Life, drawn from the Head.

Of EXERCISE and QUIET.

1. **W**HATEVER was the *Original* Constitution of *Man*, in our present State, a due Degree of *Exercise* is indispensibly necessary towards *Health* and *Long Life*.

2. *Animal Food*, and *Strong Liquors*, seem not to have been designed for *Man* in his *Original Make* and *Frame*; but rather indulged, to shorten the *Antediluvian Length* of *Life*, in order to prevent the *excessive Growth* of *Wickedness*.

3. *Walking* is the most natural and effectual *Exercise*, did it not spend the *Spirits* of the tender too much. *Riding* a *Horseback* is less laborious, and more effectual for such. *Riding* in a *Coach* is only for the *Infirm*, and *Young Children*. *House Exercises* are never to be allow'd, but when the *Weather*, or some *Bodily Infirmary* will not permit going abroad; for *Air* contributes mightily to the Benefit

nefit of *Exercise*. Children naturally love all kinds of *Exercise*, which wonderfully promotes their *Health*, increases their *Strength*, and stretches out their *Organs*.

4. The *Organs* of the *Body* that are most used, always become *strongest*, and therefore we may strengthen any weak *Organ* by *Exercise*.

5. The *Lungs* are fortified by *loud Talking*, and *walking* up an easy *Ascent*. The *Digestion* and the *Nerves* are strengthen'd, and most *Head-aches* cur'd, by *Riding*; the *Stone* and *Gravel* eased by riding in a *Coach* over rough Ground; *Rheumatick Pains* by playing at *Tennis*, *Billiards*, &c. 'till one *sweat*, and then going to a warm *Bed*, to promote the *Sweating*; Feeble *Arms* by playing at *Shuttlecock*, or *Tennis*; Weak *Hams* by *Foot-ball*, and weak *Backs* by *Ring*ing, or *Pumping*. The *Gouty* best recover the *Use* of their *Limbs* by *Walking* in rough *Roads*; but prevent the *Fits* best, by *Riding* a *Horseback*, or in a *Coach*. The *Vale-tudinary*, and the *Studious*, ought to have stated *Times* for *Exercise*, at least *Two* or *Three Hours* a *Day*, the one *Half* before *Dinner*, the other before going to *Bed*.

6. *Exercise*, 1. should always be gone about with an empty *Stomach*: 2. Should never be continued to *Weariness*: 3. After it, one must take *Care* not to catch *Cold*. And it should always be accompanied with *Temperance*; else, instead of a *Remedy*, it will become an *Evil*.

7. *Cold-bathing* is of great *Advantage* to *Health*; but should not be used under a *Fit* of a *chronical* *Distemper*, with a quick *Pulse*, or with a *Head-ach*, or by those that have weak *Lungs*. It promotes *Perpiration*, enlarges the *Circulation*, and prevents the *Danger* of catching *Cold*. Those of tender *Nerves*, should pour *Water* on their *Heads* before they go in, and none ought to jump in suddenly, and with their *Heads* foremost.

8. The *Flesh Brush* is a most useful *Exercise*, as appears by its *Advantage* to *Horses*, and ought not only to be used on *Human Bodies*, but also on such of the *Animals* we design for our *Food*, as it can be applied to.



C H A P. V.

Of our Evacuations, and their Obstructions.

§. I. **T**HE Three Principal Evacuations are, By Siege, by Water, and by Perspiration. All these must be duly regulated, and in the Order of Nature, towards the Preservation of Health, and the prolonging of Life. The First ought to be of a due Consistence between

* i. e. The Gross Evacuations ought to be of such a Consistence in the Healthy, as to take the Impression of the Guts.

both Extremes. * *Oportet Sanorum Sedes esse figuratas.* Those who are costive; have either over-bated their Bodies with strong Liquors; have eaten too sparingly; have too slow a Digestion, or the Peristaltick Motion of their Guts are too weak, whereby the Food staying too long a Time before the Mouths of the *Lacteals*, is over-drain'd of its

Moisture: Those who have purging Stools, have eat too much, or of things too strong for their *concoctive* Powers.

† i. e. The Food, after it is drain'd of its Nutritious Parts.

For *superfluous* Nourishment leaves too much Chyle in the † *Faces*, which fermenting in the Guts, stimulates them so as to become a *Purge*. I have often observed,

That a full Meal of strong Meat, as *Fish*, *Beef*, *Pork*, *Baked Meat*, or made Dishes, in tender Persons, goes off with the *Hurry* and *Irritation* of a *Purge*, leaving the Bowels *inflated*, *colicked*, or *griped*, and the Spirits sunk to the last Degree. The Food, by its various *Mixture*, *Weight*, and *Fermentation*, stimulating all along from the *Stomach* to the *Rectum*, and being scarce ever drained of its Chyle, without affording any Nourishment to the Body, runs off thus crudely, and becomes equal to a total

|| i. e. After the Tryal has been made.

abstinence from Food for a long Time. And hence we have a most infallible Rule, || *à posteriori*, to judge if we have governed ourselves in our Diet in Proportion to the

Necessities of Nature, and the Forces of our *concoctive* Powers.

Powers. This is the very Reason why the *Bark* over-dosed, and given to Persons of weak Digestion, so constantly purges them; and why *Mercury*, given either inwardly, or by *Friktion*, runs off in violent purging, and cannot be raised into a *Salivation*; to wit, the not adjusting the *Doses* to the Strength of the *Stomach* and *nervous Fibres*. For the *Bark* naturally binds, and *Mercury* naturally rises to the most pervious *Glands*. And in this Sense, I my self have frequently observed in weak and *scrofulous* Bowels, even *Diascordium*, and *Venice Treacle* to purge: Whereas, had the *Doses* been duly proportioned, or had they begun by Under-dosing, and taken a little longer Time, their End might have been effectually answered; as I have often experienced without ever failing.

§. 2. And here it may not be amiss to take Notice of a fatal Mistake those run into, who, being *weakly*, *thin*, and *slender*, aim, by all Means, and at any Price, to become *plump* and *round*, and in order to attain this, are perpetually devouring huge Quantities of *high*, *strong* Food, and swallowing proportionable Measures of *generous* Liquors, not knowing, that by this very Method, they promote and confirm the *Disease* they would remedy; for in such Persons and Cases, the *globular* Part of the Blood is constantly of a *small* Quantity, and very *glewy*, and the *serous* Part, thin and watry (that is, The Blood is *poor* and *weak*) and the *Solids* or *Nerves* are *loose* and *relaxed*. And the concoctive Powers being in *Proportion* to these *Two*, of Consequence, the *Digestions* must be weak and imperfect, and their Force unable to dissolve and break any Quantity of such *strong* Meat or *spirituous* Liquors into a proper Chyle for Nourishment. And this great Load must either be hurried off intirely thro' the *alimentary Ducts* in supernumerary Discharges, or the small Portion of Chyle drawn out of it, being too gross to unite and make a *similar* Fluid with the Mats of the Blood, must be *precipitated* through the other *Drains* of the Body; and thus the poor thin Creature must starve in *Luxury*, and waste amidst *Superfluity*. The Case is the same with *Nurses* and *Parents* in rearing up Young Children. The perpetual *Gripes*, *Colicks*, *Loosenesses*, *hard Bellies*, *Choakings*, *Wind*, and *Convulsive Fits*, which tor-

ment half the Children of England, are intirely owing to the too great *Quantities* of too strong Food, and too rank Milk, thrust down their Throats by their over-laying *Mothers* and *Nurses*. For what else do their *slimy*, their *gray* or *chylous*, their *blackish* and *choleric* Discharges, the *Noise* and *Motion* in their Bowels, their *Wind* and *Choakings*, imply, but *Crudities* from superfluous Nourishment? This is so certain, that they are universally, and infallibly cured by *testaceous* Powders, which only *absorb* sharp *Crudities*, by *Rhubarb* Purges, which at once *evacuate* and *strengthen* the Bowels, and by *Milk Clysters*, *Issues*, and *Blisters*, which are still upon the Foot of Evacuation: By *obstinately* persisting in these, and the like (intended to *evacuate* and *strengthen* the *alimentary* Passages) and a thin, spare and nutritive *Diet*. Nothing nourishes but Food duly *concocted*; and, in the Course of Nature, we must first *plump* up and extend, and then *harden* and strengthen. This is the Way of Nature in *Vegetation*. And thus the *Animal* Creation, devoid of Reason, rear up their Young: And thus even the skilful *Groom* treats his wasted and decayed *Horse*: And (which is wonderful) you shall find a sagacious *Horse-Doctor* plump up and fatten a rotten, lean, broken-winded Jade, and make him look *sleek*, *gay*, and *lively* so as to cheat not only the *Esquire*, but his *Brother-Doctor*, in fewer Weeks, than all the *Man-Doctors* in England could, rear up their *Fellow Creature*, in Years. 'Tis true, the *Juices* of *Men* are more variously, and more thoroughly corrupted, and their *Solids* intirely broken, which never happens to the *Brute-Creation*. But the greatest Mistake lies in the Neglect of *duly* observing, and *religiously* prosecuting a proper Regimen. This must principally consist in a *Diet* of *soft*, *light*, *tender*, *cool*, and *mucilaginous* Foods, or such as are already become *Chyle*, either by *Nature* or *Art*, such are *Milk*, and *Milk-Meats*, *Rice*, *Sago*, *Barley*, *Wheat*, *Eggs*, *Broths*, *light Soops*, *Jellies*, *white*, *young*, *tender*, and *well fed Poultry*, or *Butchery Meat*, eaten little at a Time, and often, never without an *Appetite*, nor to *Satiety*; joining to these, the other Helps and Assistances mentioned in this *Treatise*. When *Flesh* is once come, 'tis easy to make it *strong* and *hardy*, by due *Exercise*, and gradual

gradual adventuring upon *higher* Foods and more *generous* Liquors.

§. 3. I have often hard *valetudinary* and *tender* Persons and those of *sedentary* Lives and *learned* Professions, complain of *Head-aches*, *Sicknesses* at the Stomach, *Colicks* and *Gripes*, *Lowness* of *Spirits*, *Wind*, and *Vapours*, and yet pretend they were very moderate and *abstemious* in their Eating and Drinking; But, upon Enquiry, I constantly found these very Persons pursued with *purging* Stools, which was an evident *Proof*, to me, that they had taken down more than they wanted, or could digest. For 'tis *universally* certain, That those that do not exceed, must have either *Costive*, or, at least, Stools of a middle *Consistence*. There is nothing more *ridiculous*, than to see tender, *hysterical* and *vapourish* People, perpetually *complaining*, and yet perpetually *cramming*; crying out, They are ready to *sink* into the Ground, and faint away, and yet *gobbling* down the *richest* and *strongest* Food, and highest *Cordials*, to oppress and overlay them quite. *Fresh* and *generous* Food, mixing with the *sharp* Humours of the *Stomach* and *Bowels*, may for some short Time, qualify and abate their *Irritation*, and may give a *Fillip* to the sluggish *Circulation*, and become, as it were, a *Cork* to stop the perpetual Fuming up of these *noxious* Steams upon the *Head* and *Brain*: But this is (pardon the Similitude) as if one should go to quench the *pestilential* Steams of a *Common-Shore*, by throwing in greater Heaps of *Ordure* and *Nuisance* into it. The proper *Remedy* in this Case, is, First, To cleanse the *fætid Abyss*, and then to preserve it clean by cutting off all the *Inlets* of *Putrefaction*. This will require a little *Courage*, *Labour* and *Pain*; but the future *Ease* and *Sweetness*, will more than abundantly recompence them; for there is nothing more certain, than that of those born *sound* here in *England*, the *Head-aches*, *Stomach-aches*, *Colicks*, and *nervous* Pains and Disorders, *universally* proceed from *Idleness* and *Fulness* of *Bread*.

§. 4. Those who eat but one moderate *Flesh* Meal a Day, will have regularly once a Day a *Discharge* of the Remains of their Food. And generally speaking, those that go oftner, have exceeded some how. Those who pretend to cure

themselves of *nervous* Disorders, or any other *chronical* Diseases, or preserve themselves from them, or lengthen out their Days, must *underdose* themselves (and therefore can go but *once* in *two* Days) even though they should undergo the Pain of *Costiveness*. For 'tis impossible the *Nerves*, of those who have *slippery* Bowels, should ever be *braced* or *wound up*; for there the *Cure* must begin, where the *Evil* began; and must be communicated thence to the rest of the *System*, as a *Ropemaker* begins the *Twist*, at one End of the *Rope*, and communicates it to all the other *Parts*. Our *Access* to the *Nerves* of the *Stomach* and *Bowels*, is obvious and open: To the *rest*, the *Way* is difficult, and far about. And since a *Relaxation*, *Weakness*, and want of *Spring* in the *Fibres*, is the *Origin* of all *nervous* Distempers, no Medicines, but such as *contract*, *stiffen*, *wind up*, and *shorten* them, can remedy this *Evil*; and they must necessarily *contract* and *bind up* the *Fibres* of the *Stomach* and *Guts*, as the *Parts* they first approach and exert their *Virtue* upon. And he, who without *firm* Bowels, thinks to cure a *nervous* Distemper, labours as much in vain as he who would keep a *Fiddle-string* soaking in *Oil* and *Water*, to make it *vibrate* or play off a fine Composition of *Musick*.

§. 5. By *Experience* and *Observation* I have found, That in those who have one regular Discharge in *Twenty* four Hours, the *Time* of the Progress of the *Food* from the *Stomach*, till its *Remains* are thrown off, is *Three* Natural Days. And in those who go but *once* in *Two* Days, the *Time* is *Six* Natural Days. The *Curious* may be satisfied in this, by swallowing an *Almond*, or any other *Nut*, which passes without being broken, or making any Irritation. The Reason is this, That a smaller *Quantity* of *Food* is retained longer, by their *Suction*, at the Mouths of the *Lacteals*, to drain it intirely of its *Chyle*, and its Weight being less, the *Concoctive* Powers have the greater *Force* upon it, and so it is retained till it is perfectly *Digested*, and drain'd of all its *Humidity*; whereby such People become *Costive*: Whereas in People that *exceed*, the contrary Causes precipitate the Course of the *Aliment*, and so leave the Bowels always *slippery*. And nothing can more *demonstratively* shew an *Ex-*
cess,

cess, than the *Lubricity* of the Discharge; and I have often observed in tender Persons, and those of weak *Nerves*, when a Meal (I mean only of those who eat *Flesh Meat* but once a Day) has been a little too hard for the *Stomach*, tho' the *Spirits* have been full and free, and the *Health* equal and good, by duly *proportioned Meals* for two preceding Days; the Third Day, when the gross *Meal* came off, they have been full of *Wind* and *Vapours*, their *Eyes* dim, and their *Heads* heavy, with flying *Rheumatick Pains* over the Body, and *Colick Gripes*. From hence we may draw these three *Corollaries*.

Coroll. 1. It requires the same Time for the *unconcocted Chyle* of a gross *Meal* to run the *Circle* of the Habit, and the *feculent Remains* to pass thro' the *Guts*; the First by *Perspiration*, and the Last by *Siege*.

Coroll. 2. We may likewise gather from thence, a *Confirmation* of that *Aphorism* of the *Physicians*; That the *Errors* of the *first Concoctions*, are never mended in the *subsequent*, unless the Case to be mentioned in the next Paragraph be an *Exception* to it. For the gross *Meal* gave rather more *Uneasiness*, when it came to be thrown off by *Perspiration*.

Coroll. 3. From hence we may also see, the *Ridiculousness* of the *Vulgar Opinion*, ascribing universally the *Pain* they suffer, or the *Relief* they find, to the *last Meal* or *Medicine*.

§. 6. There are some sorts of *Food* which may oppress and load the *Stomach* and *Alimentary Ducts* in the *first Concoction*, which may be very safe and benign in the *subsequent* ones. For instance, *Cheese*, *Eggs*, *Milk-Meats*, and *Vegetable Food*, tho' duly prepared, and justly proportioned in *Quantity*, may chance to lie heavy on the *Stomach*, or beget *Wind* in the *Alimentary Passages* of some Persons (and yet drinking of *Water* will always remedy this *Inconveniency*): But these neither having their Parts strongly united, nor abounding in sharp *Urinous Salts*, when they become sufficiently diluted with a watry *Menstruum*, or dissolved into their *Component Parts*, and their Parts being still smaller than the *smallest Vessels*, and their *Union* constantly less, than the *Force* of the *Concoctive Powers*, in Persons who

who have any remaining *Fund* of Life in them; will thereby yield a sweet, thin, and easily *Circulating Chyle*, in the after *Concoctions* become *benign* and *salutary*, and afford no *Materials* for *Chronical Distempers*. And the *Wind* thence generated, not being *pointed* and *armed* with such sharp *Salts*, as those of *Flesh Meats*, or the *Corrosive Juices* of *Spirituous Liquors*, will be as innocent and safe, as the *Element* we breath in.

§. 7. The Second *Evacuation* is by *Water*, whose *Circumstances* and *Condition*, tho' little adverted to, may be of great *Service* to discover both the *State* of our *Constitution*, and the *Proportion* of our *Diet*. Some People are frightned when they find their *Water turbid, broken*, and full of *Brick-dust Sediment*; whereas that is the best *Symptom* it can have. For tho' it supposes the *Blood* loaded with *Urinous Salts* and *Crudities*; yet 'tis still better they should pass off than continue in the *Habit*. On the contrary, when those that live *freely*, have *Quantities* of *pale, limpid* and *sweet Water*, 'tis a certain *Sign* that the *Perspiration* is stopp'd; that neither the *First* nor the *Secondary Concoctions* have been duly perform'd; that the *Chyle* has not been sufficiently *broken*, nor the finer *Secretions* duly made by the lesser *Drains*; and that the *Urinous Salts* are still retained in the *Habit*. Upon which must needs ensue *Oppression* of *Spirits*, *Chills* upon the *Extremities*, *flying Rheumatick Pains* over the *Body*, *Head-aches*, *Colicks* and *Gripes*. And here it may not be amiss, to take Notice of the Difference of the *pale Water* of *Hypochondriacal* and *Hysterical* Persons, from that of those who labour under a true *Diabetes*, the Apprehension of which terrifies so often the *Low* and *Dispirited* Persons of the *First Class*. The *Water* of both has the same *Appearance*, both in *Quality* and *Quantity*; at least, in the first Instance, they are both attended with the same *Sinking* and *Dispiritedness*. But in a true *Diabetes*, there is a constant *Thirst*, a *low* but *quick Pulse*, the *Water* is much *sweeter*, and continues longer to come off in *profuse Quantities*, in so much, that sometimes it is so violent as to run down the *Party* in a few Days. In *Hypochondriacal* and *Hysterical* Persons

Persons there is little or no *Thirst*, never a *quick Pulse*, but rather too *low* and *slow* a one, the *Flux* soon stops of itself, or by any little *Diaphoretick* Medicine, and they are cold upon the *Extremities*, which the others are not.

§. 8. That *bluish* and *variegated Film*, which sometimes looks like *Oil* and *Fat* swimming on the *Water* of *Scorbutick* and *Cachectick* Persons is nothing but the *congregated Salts* which are *crowded* so thick together, that they are ready to shoot into *Clusters*, much like the *Film* * i. e. A *Lye* of a * *Lixivium*, when standing for the *Crystallization* of fixed *Salts*. The *Water* which has a *light Cloud* hanging almost from the *Top* to the *Bottom*, is of a *bright Amber* Colour, and about *three Quarters* of the *Liquor* taken down, is best, and a certain Sign of a *due Concoction*, a just Proportion of Food, and a total Absence of *Repletion* and *Crudity*. And those who live *Temperately*, use *due Exercise*, and enjoy a perfect State of *Health*, always make such *Water*.

§. 9. Those who are subject to great *Quantities* of *limpid* and *pale* *Water*, ought to conclude, that their Food has been too *heavy* in *Quality*, or too much in *Quantity* for their *Concoctive Powers*, or their *Labour* too little; and that therefore, they ought to proportion both, for the future, with more *Caution* and *Exactness*, by living *low* for some Time, or using more *Exercise*. And to stop their *Flux* of *pale Water*, they ought to take a little *Gascoign's Powder*, *Confection* of *Alkermes*, or *Sir Walter Raleigh's Cordial* at Night, and drink liberally of *small warm Sack Whey*, with a few Drops of *Spirit* of *Hart's-horn*, to set the *Perpiration* in order again. Those, on the other Hand, who make *high colour'd*, *foul*, and very *turbid Water*, in smaller *Quantities*, have either inflamed their Blood too much with *Spirituuous Liquors*, or loaded it with too great a *Quantity* of *Animal Salts*. To prevent therefore *Disorders* and *Diseases*, they must lessen the *Quantity* of their *Flesh Meat*, and temper the Heat of their *Wine* with *Water*. Else they will lay the Foundation of some *Acute Inflammatory*, or dangerous *Chronical Distemper*.

§. 10. The

§. 10. The worst kind of Water of all, is that of a *dark Brown* or *dirty Red*, in a small *Quantity*, and without any *Sediment*. This kind of *Water*, in *Acute* Diseases, always indicates insuperable *Crudity*, *high Inflammation* tending towards *Mortification*, and a dying *Langour* in Nature. And in Persons labouring under no *visible* Distemper at the Time, an almost total *Debility* of the *Concoctive* Powers, an inseparable *Union* of the *Constituent* Parts of the Blood, the highest Degree of *Crudity*, and a *Deadness* in all the *Animal Functions*: And, if preceded by long continual *Excesses*, requires the Advice of a *Physician*. I shall say nothing of *Coffee-colour'd*, *Bloody*, *Whyeish*, or *Purulent* Water, or that with white *Gravel*; *Films*, *Rags* or *Bits* of broken *Membranes*. They are well known to be *Nephritick*, or *Symptoms* of an *Ulcer* somewhere in the *Urinary Passages*.

§. 11. There happens also an *Evacuation* both by *Siege* and *Urine*, to some weak Persons of *relaxed Nerves*, that extremely alarms the *Patient*, and is not so readily accounted for in common * *Ætiology*. It is when either a *white transparent*, *viscid* Substance, like *Gelly*, is constantly voided by the *Bowels*, more or less; or when a *white*, *milky*, *glewy* Substance like *Cream* or *laudable Matter*, settles in the *Water*: Both these *Appearances* are commonly ascribed to an *Ulcer* in the *Guts*, or in the *Kidneys*, the very Apprehension of which is almost sufficient, in some low Persons, to bring on the Distemper feared: And yet, I am very certain, there is neither *Ulcer* nor true *Matter* in either Case, as I propose them. For where there is violent and acute Pain, or *Matter* of different Colours or Mixtures, there, very possibly, may be, nay, certainly there is an *Ulcer*. But in the Case I here intend, there is very little or no pain; no *Hectical Paroxysms*, which always attend an inward *Ulcer*; no bloody or *sanious* Mixtures, which always betray the inward Sore; no *fetid* Smell to imply Corruption. For the Cases I put at present, happen to

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* That Part of
Physick which
teaches the Causes
of Diseases.

Persons the least capable of *Inflammation* or *Imposthumation*, viz. to *paralytick* Persons, or those of a Natural Tendency that Way, to *cold, vapourish* Persons of low *Spirits* and weak *Nerves*, whose Pulse is low and slow, and their natural *Functions* weak and languid; all which evidently shew, that these Discharges cannot come from an *Ulcer*. The first Case I take to be either an Obstruction of some of the *Lacteals*, whereby the *Chyle* cannot be carried off in any sufficient Quantity, but passing through the *Guts*, and its more Watry Part being *evaporated*, it becomes thick and *gelatinous*, and is thrown off at last with the Remains of the Food. Else it must be an Obstruction of those *Glands* of the *Guts*, by which a viscid Matter for lubricating of them, is commonly secreted; by the Imprisonment and *Evaporation* of which Matter, it thickens and turns like a *Gelly* (as it does by Cold, or Overfeeding, in the *Glands* of the *Mouth*, *Throat* and *Windpipe*) and, at last, by the squeezing of the *Guts*, is thrown off. And in the same Manner, I take that *Milky* Substance subsiding in the *Water*, in such a Case as I have mentioned, to arise from a *Relaxation* of the *Glands* of the *Kidneys* and *Bladder*, and other *Urinary* Passages; and that both are to be cured the same Way other *Nervous* Distempers are cured, viz. by a proper *Regimen* of *Diet*, and a Course of contracting, strengthening, and volatile Medicines.

§. 12. The insensible *Perspiration* is the *Third Evacuation* to be considered. The *Statical Chair* invented by *Sanctorius*, for examining the Quantity of the *Perspiration*, however ingenious and delightful in *Speculation*, is too cumbersome and laborious to be of any great Use in common Life. 'Tis certain, however, that the free and full Flowing of this *Evacuation*, is as necessary to *Health* as any of the grosser, since in Quantity it is at least equal to both the forementioned; and an *Obstruction* thereof, is generally the Source of all *Acute* Diseases, as it is a *Consequence* of all *Chronical* ones. And therefore I have advised those who are much abroad in *Easterly* and *Northerly* Winds (which most of any obstruct *Perspiration*) and have *Fluxes* of white
I and

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and pale Water, to a ready *Antidote* to prevent the Beginnings of these *Obstructions*.

§. 13. Dr.* JAMES KEILL has made
 * His Statica Britannica. it out, beyond all possibility of doubting, that catching of Cold is nothing but sucking in, by the Passages of *Perspiration*, large Quantities of moist Air and *nitrous Salts*, which by thickening the Blood and Juices (as is evident from Bleeding after catching Cold) and thereby obstructing not only the *Perspiration*, but also all the other finer *Secretions*, raises immediately a small Fever and a Tumult in the whole animal *Oeconomy*; and, neglected, lays a Foundation for *Consumptions*, *Obstructions* of the great *Viscera*, and universal *Cachexies*. The *Tender* therefore, and *Valetudinary* ought cautiously to avoid all Occasions of catching Cold, and if they have been so unfortunate as to get one, to set about its Cure immediately, before it has taken too deep Root in the Habit. From the Nature of the Disorder thus described, the Remedy is obvious; to wit, Lying much a-bed, Drinking plentifully of small warm Sack-Whey, with a few Drops of Spirits of *Hart's-horn*, *Posset-Drink*, *Water-Gruel*, or any other warm small Liquors, a Scruple of *Gascoign's Powder*, Morning and Night, living low upon Spoon-meats, Pudding and Chicken, and drinking every thing warm: In a Word, treating it at first as a small *Fever*, with gentle *Diaphoreticks*; and afterward, if any Cough or Spitting should remain (which this Method generally prevents) by softening the Breast with a little *Sugar-Candy*, and Oil of sweet *Almonds*, or a Solution of *Gum Ammoniac*, an Ounce to a Quart of *Barley-Water*, to make the *Expectoration* easy, and going cautiously and well cloathed into the Air afterwards. This is a much more natural, easy and effectual Method, than the Practice by *Balsams*, *Linctus's*, *Pectorals*, and the like Trumpery in common Use, which serve only to spoil the Stomach, oppress the Spirits, and hurt the Constitution.

§. 14. The surest Way of maintaining and promoting a due *Perspiration*, is, to take down no more Food than what the concoctive Powers are sufficient to reduce into a due Fluidity, and the Expences of living require, to prosecute necessary *Exercise*, and use the other *Assistances* advised in the foregoing Chapters. Want of due *Rest*, and *Refreshment* that follows upon it, *Starting*, *tossing*, and *tumbling* a-bed, are certain Signs that the *Perspiration* is not duly carried on in the Night Season. And therefore, in order to remedy this, a greater Proportion of *Exercise*, a greater Degree of *Abstinence*, or some gentle *Domestick Purge*, must be had Recourse to the next Day. *Colical Pains*, *Gripes* and *Purging*, much *Eruclatation* and *Belching* of Wind, *Low Spiritedness*, *Tawning* and *Stretching*, are infallible Signs that the *Perspiration* flows not freely and plentifully then. And therefore the same Remedies ought to be prosecuted, as soon as an Opportunity offers; else the Party will suffer at last. *Wind*, as *Sanctorius* observes and demonstrates, is nothing but *obstructed Perspiration*: And *Tawning* and *Stretching*, are but *Convulsions* of the proper *Muscles* and *Organs* appointed by Nature, the one for *pumping up Wind* from the *Bowels*, the other for pressing upon the *Excretory Ducts* in the *Skin*, to force out the sluggish *perspirable Matter*. And 'tis beautiful to observe, how wisely Nature has contriv'd the *Spasms*, *Cramps* and *Convulsions* of the proper *Organs*, to Exhel every *noxious* and *extraneous* Body out of the *Habit*. Thus *Coughing* is a *Convulsion* of the *Diaphragm*, and *Muscles* of the *Breast*, to throw out viscid *Phlegm*; *Vomiting* of the *Stomach*, (assisted by the *Diaphragm*, and *Muscles* of the *Abdomen*) to throw up its *Crudities*, and those of the *Bowels*; or to expel *Sand* or *Stones* from the *Kidneys*. The *Throws* of *Labouring Women* are to bring off the *Burden*. *Sneezing* is an Effort of the proper *Muscles*, to eject some *noxious Particles* from the *Organs* of *Smelling*. *Shivering* and *Stretching* to assist *Perspiration*; and *Tawning* to pump up *noxious Wind*. And even *Laughing* itself, is an Effort of the *Muscles* of the whole *Trunk*, to throw off something that its *delicate Membranes* cannot bear. And lastly, *Hysterical Fits* and *Convulsions*, both in

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Infants and *Persons* come to *Maturity*, are but violent *Efforts*, *Struggles*, *Workings*, *Cramps* and *Spasms* of all the *Muscles* of the whole *Body* together, to expel, squeeze, and press out the sharp *Acrimonious Wind*, *Fumes*, and *Vapours* from the *Cavities* of the whole *Machine*.

§. 15. There is an *Evacuation* incident to *Persons* of *Weak Nerves*, which could not conveniently come in under the general *Division*, because it happens too seldom to make a new *Member* of it. It is a *Discharge* of thin *Rheum* from the *Glands* of the *Mouth*, *Throat* and *Stomach*, and is called by some, A *nervous* or *scorbutick* *Spitting*. It rises sometimes to the *Height* of a *petit Flux de Bouche*, as the *French* call it, and threatens some tender *Persons*, as they apprehend, with a *Consumption*, though it imply *Nothing* less. We may observe some who are struck with a deep *Palsy*, to flow at the *Mouth* and *drivel* down their *Breasts*; insomuch, that the *Afflicted* of this *Sort*, who are advanced in *Years*, can scarce speak intelligibly for the *Flux*, 'till they have first emptied and cleaned their *Mouths*. And this arises to so great a *Height*, in some much broken *paralytick* *Persons*, that upon the slightest *Occasions*, either of *Joy* or *Grief*, they are apt to run into a *Profusion* of *Tears*, *Sighs* and *Sobbing*. And some *Sorts* of *Ideots*, and those *Hysterically* *mop'd*, and most of those who suffer from *relaxed* and *weak Nerves*, are more or less subject to these *salival* *Discharges*, especially after *Excesses* in *Diet*. Hence the first *Sort* receive the *Appellation* of *Snivellers* or *Drivellers*. And the *Difficulty* of the *Cure* of all the *Diseases* of *weak Nerves* depends much upon the *Quantity* and *Constitution* of this *Flux*. For much and long *Spitting* and *Running off* of this *Rheum*, implies a total *Relaxation* of the whole *Nervous System*, and shews neither the first nor second *Concoctions* have been duly performed. I have frequently had *Occasion* to shew, how *Excesses* in the *Quantity* or *Quality* of the *Food*, in *Persons* of *relaxed* and *weak Nerves*, begot a viscid and gross *Chyle*, of which that *Part*, which could not get thro' the *Lacteals*, lay fermenting and putrifying in the *alimentary Passages*, begot
Wind,

Wind, Gripes and Cholicks, and at last, wrought it self off like a *Purge*; and that, *that Part* which got through the *Lacteals*, and was received within the Limits of the Circulation, being too gross and glewy to be mixed with the old *Mass* of the *Fluids*, to circulate through the smallest Vessels, and to enter the fine *Perspiratory Glands*, would necessarily be thrown into the wider, more spongy and loose *Salivary Glands*, which are appointed by Nature to seern the more Glutinous Parts of the Fluids. And from thence this Salivary Inundation proceeds. The *Fact* is, When those of weak *Nerves*, commit habitual Excesses in their *Diet*, the Glands and small Vessels of all the Body are *tumified, swelled and obstructed* thereby, as they needs must be. And 'tis from the Pressure of these enlarged *Glands*, and the obstructed *capillary Vessels* on the *Nerves*, and patent Blood Vessels, that most of the Evils they suffer under proceed. But more especially, are the *Glands* appointed to draw off the more viscid serous Part of the Blood, *obstructed and tumified* thereby. Upon which Account, as *Baglivi* advises, to enquire well into the State of the *Tongue and Mouth*, in order to discover the Condition of the *Stomach, Guts and Bowels*; so I think 'tis highly reasonable, in a Chronical Case, to have great Regard to the Condition of the Eyes; and if a dead cold *Languor* be observed in the Hue or Water of them (as *Jewellers* speak of *Diamonds*) and more especially in the *Lachrymal Gland* in the Corner next the Nose, which I always narrowly inspect; if I say, this *Gland* be found harder, or larger than ordinary, swelled and tumified, it must certainly be concluded, whatever else be in the Case, there must be a relaxed State of *Nerves*, much *Vapours*, weak natural *Functions*, and a mismanaged *Regimen*. And it is from the Obstruction and Swelling of this and the other *Glands*, in and about the Eyes, and their Pressure upon the *Optical Nerves*, and fine Blood Vessels; that those *Spots, Flies, Atoms, Dimness, Darkness, and Confusion* of Sight, in *Vapourish* and *Hysterical* People proceed. For this *Gland* shews, that the whole *serous Glands* in the upper Regions of the Body are in Proportion tumified and swelled with *viscid Humours* through *Excess* of Diet;

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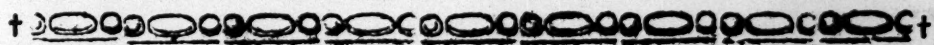
Diet; unless the Persons have suffered there by Accident, or Labours under some natural Disorders of the *Eyes*. From the Obstruction and Swelling of the *Salivary Glands* in the Mouth, Throat and Gullet, proceed also those *Choakings*, *Gulhing* and *Strangling*, that *Hysterick* Persons so often complain of. The *Wind* and *Crudities* lodged in their Stomach and Guts, and the rest of the Cavities of the Body, pressing to get *Vent* upwards, are resisted and stopp'd in their Passage by the *Diaphragm*, whereby the Inspiration is streightned, and, by the Bulk of these *Glands* throughout the Gullet, the Way is intirely stopp'd which raises such a *Tumult* and *Struggle*, as produces the mentioned *Symptoms*; which I have not Leisure to detail here more minutely. Now this *Salivation* or Discharge of the thinner *Rheum*, and that *Coughing* and *Hawking* of more viscid *Flegm*, commonly called a *nervous Cough*, as also the *Chincough*, of Children, and all such Discharge of sharp *Serum* in Persons of weak and relaxed Nerves, is an *Effort of Nature* to relieve them. And, if discreetly managed, and duly heeded, would prove a *Crise* to their Disorders, and quite free them from

* The sharpest Part of the suffering Fit of a Disease.

their present * *Paroxysms*, and set the *Circulation* and *Perspiration*, and, consequently, the *Spirits*, at Freedom and Liberty again.

Some Persons most distractedly run to *Drams* and *Cordials* to remedy this *Evil*, to stop the Violence of this *Deluge*, and to raise their drooping Spirits. But it serves only to thicken the *Flegm*, shut up the Mouths of the *Salivary Glands* closer, and so to perpetuate the *Evil* they mean to cure. Others devour large Quantities of high and generous Foods, because they find a little Relief to their Spirits. from the first Run of the sweet, thin and spirituous *Chyle*: But this is only adding Fuel to the Fire, and running on in a perpetual Round of Lowness and *Slavering*. Whereas, would they suffer Nature to act her own Way, and to carry on this critical Discharge, as far as it will go, without offering in the least either to check or promote it; but by thin, light Food, and cool Liquors, in moderate, or rather under-dosed Quantities, support her in the manner the *Concoctive Powers*

ers are sufficient for; after she had discharged all the *Crudities* from the Mass of the *Fluids*, by these *Emunctory Glands*, and thereby given a free Passage to the Wind to escape the Way it tends, the Salivation would lessen gradually, and at last stop of itself. And if then towards the Decline, a gentle Vomit, to pump up the slow and viscid Remains of the Wind and Flegm in the Upper Part of the *Alimentary Passages*, and afterwards a gentle *Stomachick warm Purge*, to scour the Lower Part of these *Tubes*, were carefully administred; the Patient would soon find a clear Head, lightsome Spirits, Ease and Freedom from Pain and Oppression; the Circulation and Perspiration would be soon brought to their natural and sound State, and Health and Cheerfulness restored together; unless a mortal or habitual * *Pty-* * Spitting. *alism* was the Case, which I have sometimes observed, as fatal and incurable as a true *Dropsy*, or inveterate *Diabetes*; all which owe their Being to a deep *Scurvy*, whereby the Globular Part of the Blood is intirely broken, and the *Serum* made a meer *Lixivium* or Lye.



R U L E S for Health and Long Life, drawn from the Head.

Of EVACUATION.

I. **C** O S T I V E Stools are Signs of over-heated Blood, too spare Feeding, Slowness of Digestion, or Weakness of the Guts.

2. *Purging Stools* shew intemperate Feeding. Too full a Meal has the Effects of a *Purge*, fills the Guts with Wind, and gives Gripes. *Mercury*, and even the *Bark*, *Diascordium* and *Treacle*, if over-dosed, purge.

3. *Head-aches, sick Stomachs, Vapours, low Spirits, Gripes and Colicks*, proceed from Cramming; and are ever accompanied with loose Stools.

4. Those that live Temperately, have one regular Stool a Day. Those who have more, exceed.

5. The Cure of all *Relaxations* of the Nerves (the Source of Chronical Diseases) must necessarily begin at the Stomach and Guts.

6. The Time from eating a Meal, till its Discharge, is three Days, in those that have one Stool a Day: Six in those that have but one in two Days.

7. A gross Meal produces more Disorders, the Day the Excrements of it go off, than the Day it is eaten.

8. A Meal takes the same Time to get through the Habit by *Perspiration*, that its Remains do to pass thro' the Guts.

9. The Errors of the first Concoctions cannot be mended afterwards.

10. Pain or Relief, is not always the Effect of the last Meal or Medicine, that was taken down.

11. Though *Cheese, Eggs, Milk* and *vegetable Foods*, may be hard to digest, without drinking of Water, to some Stomachs; yet their *Chyle* is good, and produces no bad Effects.

12 *Turbid Water with Brick-dust* Sediment, proceeds from the critical Discharge of what was preternaturally retained in the Habit.

13. *Pale sweet Water*, from the *Urinous Salts* being yet retained.

14. There is great Difference between *Hysterick pale Water*, and that which proceeds from a *Diabetes*.

15. These

15. That Appearance of *Fat* on the Urine of some People, is nothing but a thin *Film* of *Salts*.

16. *Bright Amber-colour'd* Water with a light Sediment rising towards the Top, amounting to three Quarters of what is drank, is a Sign of a good Digestion.

17. Great Quantities of pale Water proceed from Excess in the Quantity of Food, and want of Exercise. The Cure of it is performed by eating less, using more Exercise, and taking some *Diaphoreticks*, to set the *Perspiration* right.

18. *High-colour'd turbid* Water, in small Quantity, shews abundance of *Animal Salts* in the Habit, or the immoderate Use of Spirituous Liquors: And must be cured by Vegetable Food, and Water, or other small Drink.

19. *Dark brown* Water or of a dirty red, is extremely dangerous, both in acute Cases, and in those that seem at present to ail nothing.

20. *Bloody purulent* Water, and full of *Films*, is a Sign of *Nephritick Ailments*, *Stone* and *Gravel*.

21. The viscid Matter like Gelly, in the Stools, and the viscid milky Substance somewhat like Matter in the Urine of some People of weak Nerves, proceed from a Corruption of the Liquor of the *Mucous Glands* of the Intestines, and of the Bladder, and other Urinary Passages.

22. *Obstruction* of *Perspiration* is one Source of acute Diseases, and a Consequence of *chronical* ones.

23. Catching of Cold is an *Obstruction* of *Perspiration*, by the *humid* and *nitrous* Particles of the Air. It should be cured by gentle *Diaphoreticks*, and not by *Balsamick* Pectorals, which do no good but in the End of the Cure, to promote *Expectoration* from the Lungs, if there be any Occasion for it.

24. Persons of weak Nerves, have often a critical Flux of Rheum from the *Glands* of the *Mouth* and *Throat*, to a very large Quantity, which, if not *tampered* with, brings them great Relief.



CHAP. VI.

Of the PASSIONS.

§. 1. **I** Come now, in the Order of my first proposed Method, to treat of the *Passions*; which have a greater Influence on *Health* and *Long Life*, than most People are aware of. And that I may propose my Scheme with the greatest Clearness I can, I will lay down some *Propositions* or *Axioms*, as the Ground work on which it is founded.

Prop. 1. The Soul resides eminently in the Brain, where all the Nervous Fibres terminate inwardly, like a Musician by a well tuned Instrument, which has Keys within, on which it may play, and without, on which other Persons and Bodies may also play. By the inward Keys, I understand those Means by which the Thoughts of the Mind affect the Body; and by the outward, those whereby the Actions or Sensations of the Body affect the Mind. Both these Affections may be called *Passions* in a general View, as either Part of the Compound is acted upon.

Scholium. As a Man is compounded of two different Principles, Soul and Body; and as there are two different kinds of outward Objects, by which these two different Principles may be acted upon; to wit, Matter and Spirit; the *Passions* in these two different Views may be

be divided into Spiritual and Animal. As to the first Branch of this Division, since Spirits (if I may be allow'd there are any such Beings) may be supposed to act upon one another, without the Mediation of *Organical Bodies* (such perhaps was *St. Paul's Extasy*, when he was rapt up into the Third Heavens; such was *Moses's Commerce* with his Maker, when he spoke to *God Face to Face*; such must the Influence of the Divine Grace be supposed; and all who allow of Revelation, admit, that the Soul may be Serene and Tranquil while the Body is in Distress and Pain; and even all the Stoick Philosophy is grounded on this Distinction) it must have a real Existence in Nature. And the other Branch must also be allow'd by all those, who cannot think Brute Animals mere Machines, and who observe, that we have Impressions made on our Bodily Organs, which affect us, sometimes very deeply, even in our Sleep. However these Things be, 'tis sufficient for my Purpose, that Man is allowed to be a compounded Being, on which outward Objects may act, to abstract the Consideration of the Impressions made on the Spirit, from those made on the Body.

Prop. II. The Union of these two Principles in the Compound, Man seems to consist in Laws præ-establiſh'd by the Author of Nature, in the Communications between Bodies and Spirits, as there are, no doubt, Laws establiſh'd for Spirits, in their Commerce and Actions upon one another. For every one knows there are Laws of Nature, establiſh'd by its Author, for the Actions of Bodies upon one another.

Scholium. These Laws of the Actions of the Soul on the Body, and of the Body upon the Soul, are never to be known to us, but by their *Effects*; as the Laws of Nature in the Actions of *Bodies upon one another*, were first discovered by *Experiment*, and afterwards reduced into general *Propositions*. One Law of the Action of the Soul on the Body, & *vice versa*, seems to be, That upon *such and such* Motions produced in the Musical Instrument

strument of the Body, *such* and *such* Sensations should arise in the Mind; and on *such* and *such* Actions of the Soul, *such* and *such* Motions in the Body should ensue; much like a Signal agreed to between two Generals, the one within, the other without a *Citadel*, which should signify to one another, what they have before agreed to, and established between them; or like the Key of a Cypher, which readily explains the otherwise unintelligible Writing. Besides these Passions and Affections, which are involuntary.

Prop. III. As Bodies are purely passive, and are acted upon by other Bodies, conformable to the settled Laws of Nature; in Spiritual Beings, on the contrary, there is an *active, self motive, self-determining Principle*, by which it directs and manages itself with regard not only to its own self, and its own *Sentiments*; but also to its *Actions* and *Influence* of other Beings without it, and their *Actions* and *Influences* on it. And this is the Foundation of Liberty, or Freewill, in Rational and Intelligent Beings.

Scholium. That this Faculty or Principle really exists, and is essential to Spiritual Beings, is as certain, as that there is *Motion* in the *Universe*, or that Body and Spirit are *essentially* different. For, that *Motion* is not essential to Bodies, is as certain as that Bodies are *impenetrable*; and that the *Quantity* of *Motion* in the *Universe*, may be, and is daily increased, is as much *Demonstration* as any Proposition in *Euclid*. And if *Motion* be, is, or may be increased, it much arise from Spiritual Beings. And he who can deny this, only shews himself ignorant of the Principles of all true and just Philosophy, and of the first Elements of the *System* of material and Spiritual Beings. For further Conviction of this, and clearing up all possible Objections and Difficulties, I refer the Reader to the Learned and Ingenious Dr. *Clarke*, in his Answer to the Enquiry into Liberty, and his Letters to Mr. *Leibnitz*, where he has treated this Matter with the greatest Perspicuity

spicuity and Justness. Besides these now mentioned Principles.

Prop. IV. As in Bodies there is a Principle of *Gravity* or *Attraction*, whereby, in *Vacuo*, they tend to one another, and would unite according to certain Laws and Limitations establish'd by the Author of *Nature*: So there is an *Analogous* Principle in Spirits, whereby they would as certainly, in their proper Vacuity, be attracted by, tend to, and unite with one another, and their first Author, Centre, and the Rock out of which they were hewn (to use a Scripture Phrase) as the *Planets* would to one another, and to the *Sun*. And this is nothing else but what in Scripture is called CHARITY.

Scholium. This Proposition is as certain as the Rules of Analogy are, which, in my Opinion, are the Foundation of all the Knowledge we can have of Nature, while we can see only a few Links of an universal Chain, and but a few disjointed Parts of the grand System of the Universe. The Author of *Nature*, who could create *intelligent* Beings only in order to make them happy, could not leave them to so many different *Attractions*, without implanting into their *Essence* and *Substance*, as an *Antidote* to such Variety of *Distractions*, an infinite Tendency, Bent and Biass towards Beings of the same Nature, and towards himself, who was the Cause and Object of their Felicity. And even in this our lapsed and forlorn Estate, there remain evident Footsteps of this Principle yet un-effaced. Such are the Checks of Conscience, natural Affection, and the universal Desire of *Immortality*, and Dread of *Annihilation*; what the World calls the Seeds of Honour and Renown: All that Concern and Regard paid mere *Romantick* Heroes, and the Worship bestowed by all Nations, who are not sunk into mere Brutality, on some superior and invisible Powers. These are Remains of this Principle and its Workings, sufficient to shew its Reality *a Posteriori*; as the Laws of Analogy, and the Nature and Attributes of the first Being, shew it *a Priori*. Those who admit of *Revelation*, cannot doubt
of

of it for a Moment; for † *Moses* calls it,
A Law engraven on the Heart of Man, and St. † Deut. xxx.
Paul * *The greatest Perfection of Human* ¹⁴
Nature. * Cor xiii ult

Coroll. 1 Hence the true Nature of supreme spiritual Good and Evil may be discovered. For if there be impressed on spiritual Beings, an infinite Tendency, Bent and Biass, to be reunited with their divine Original, and the Place in the divine Substance out of which they were formed (if I may speak so in a figurative Sense) then their being finally united with this their divine Original is the supreme spiritual Good, and the several Approaches toward this Union, are the inferior spiritual Goods; as the being finally separated from it, is the supreme spiritual Evil, and the several Steps toward this Separation, inferior spiritual Evils. And the Means of this Union and Separation, are moral Good and Evil.

Coroll. 2. By *Sch.l.* of *Prop. 1.* The most general Divisions of the *Passions*, was into *Spiritual* and *Animal*. As, in the first Sense, *Passion* may be defined, The *Sentiments* produced on the Soul by *external Objects*, either *Spiritual* ones immediately, or *Material* ones, by the Mediation of the *Organs* of the *Body*: So, in the second Sense, *Passion* may be defined, The Effect produced by *Spirits* or *Bodies*, immediately on the *Body*. And since outward *Objects* may be considered as *Goods* or *Evils*, the most natural Division of the *Passions* (whether *Spiritual* or *Animal*) as they regard these *Objects*, is into the Pleasurable and Painful; which exhausts their whole Extent. And in this Sense all the *Passions* may be reduced to *Love* and *Hatred*, of which *Joy* and *Sorrow*, *Hope* and *Fear*, &c. are but different *Modifications* or *Complexions*, as they may be called. I do not descend to a more particular Account, not intending an accurate Treatise on the *Passions*, but only to lay a Foundation for some general Observations on them, as they regard and influence *Health* and *Long Life*.

§. 2. In relation to the *Organical* Instruments of the Body, and the Effects wrought on them, or the Disorders brought upon them, the *Passions* may be divided into *acute* and *chronical*, after the same Manner, and for the same Reason, as *Diseases* are. The *acute Passions*, whether *pleasurable* or *painful*, have much the same Effect, and work much after the same Manner, as *acute Diseases* do. They effect a brisk and lively Circulation of the *Fluids*, crisp up and constrict the Solids for some short Time. Thus sudden Gusts of Joy or Grief, Pleasure or Pain, stimulate and spur the *Nervous* Fibres, and the Coats of the *Animal Tubes*, and thereby give a Celerity and brisker Motion to their included Fluids for the same Time. And the Functions of the Heart and Lungs being involuntary, they have their more immediate Effects upon them. Thus both sudden Joy and Grief, make us breath short and quick, and make our *Pulse* small and frequent. The Retaining our Breath for some Time (for so far our Breathing is voluntary) to reflect more intensely upon the painful Object forces at last a strong Expiration, which becomes a Sigh. Thus a sudden painful *Idea* makes a quicker Circulation of the Blood, and thereby throwing a greater Quantity thereof upwards, through the proportionally larger Branch of the *Aorta*, makes it appear in the superficial Vessels of the *Face*, *Neck* and *Breast*, and so produces a *Blush*, which, when longer continued, and being very strong, is dispersed over the whole Surface of the Body. Hence the Observation of *Blushing at the Back of one's Hand*; and the Reasons why we *sigh* upon some Occasions, and *blush* upon others, depend upon the different Structure of the *Organs* of *Pulsation* and *Respiration*. A quick surprizing Pain of Mind acts upon the Heart, because the Motion of the Heart is altogether involuntary: So that a sudden Constriction takes Place there immediatly to increase the *Pulse*. Whereas, we have some Power over the *Breathing*; we can stop or suspend it for a Time; and when we are thinking intensely, our Attention partly makes us hold our Breath, and hence ensues Sighing rather than Blushing.

For

For the Pain being flow, quickens the Pulse more gradually: But if it continues long, both Actions of both Organs are respectively produced; and hence it comes to pass, that upon *Anxiety*, *Concern*, and *earnest Expectation*, the *Pulse* is found quick and small, and the *Breath* thick and difficult, as Experience shews. The same Principles will account for the Effects of *Fear* and *Anger*, which make us change Colour, and look *red* or *pale*, as the Blood is accelerated or retarded in its Course. The sudden *Gists* of these Passions being thus accounted for, when they become extreme, they drive about the *Blood* with such a Hurricane, that Nature is overset, like a *Mill* by a *Flood*: So that what drove it only quicker round before, now intirely stops it, and renders the Countenance *pale* and *ghastly*. Sudden and great *Fear* or *Grief* do so convulse the nervous System, that sometimes they alter the Position of the Parts, and fix them in a new one. Thus the *Hair* stands on End in a *Fright*, and the whole System of the *Nerves* become so *Rigid* and *stiff*, as to lose their *Elasticity*; whereby the *Animal Functions* are stopped at once; and *Fainting*, and sometimes *Death* ensues.

§. 3. The *Chronical Passions*, like *Chronical Diseases*, wear out, waste and destroy the *Nervous System* gradually. Those *Nerves* which are necessary for *considering*, *brooding over*, and *fixing* such a Set of *Ideas* on the *Imagination*, being constantly employ'd, are worn out, broken and impaired. The rest, by Disuse, become *resty* and *unactive*, lifeless and destitute of a sufficient Flux of warm Blood and due Nourishment. And thus the whole System languishes and runs into Decay. Thus slow and long *Grief*, *dark Melancholy*, *hopeless natural Love*, and overweening *Pride*, (which is an outrageous Degree of Self-Love) impair the Habit, by making the proper Seasons of necessary Food and due Labour to be neglected, and thereby depriving the natural Functions of their wonted Supplies, overworking some Part of the *Nervous System*, and leaving the other to *rust*, and become *resty* for want of Use. Some of these Passions, as *Love*, *Grief* and *Pride*, when very intense and long indulg'd, terminate

nate even in *Madness*. The Reason is, as I have been saying, because long and constant Habits, of fixing one Thing on the Imagination, begets a ready Disposition in the *Nerves* to produce again the same Image, till the Thought of it become *spontaneous* and natural, like Breathing, or the Motion of the Heart, which the *Machine* performs without the Consent of the *Will*; and also a Disability or **Tetanus* ensues on the **Immobility* other Parts, just as the *Faquiers* in *India* fix one or both their Hands by long holding them up, so as that they cannot bring them down again. There is a Kind of *Melancholy*, which is called *Religious*, because 'tis conversant about Matters of *Religion*; altho' often the Persons so distempered have little solid *Piety*. And this is merely a *Bodily Disease*, produced by an ill *Habit* or *Constitution*, wherein the *Nervous* System is broken and disordered, and the *Juices* are become *viscid* and *glewy*. This *Melancholy* arises generally from a *Disgust* or *Disrelish* of Worldly *Amusements* and *Creature-comforts*, whereupon the Mind turns to *Religion* for *Consolation* and *Peace*: But as the Person is in a very imperfect and unmortified State, not duly instructed and disciplined, and ignorant how to govern himself, there ensues *Fluctuation* and *Indolence*, *Scrupulosity*, *Horror* and *Despair*.

§. 4. Since the *Mind* resides, as has been said, in the common *Censory*, like a skilful Musician by a *well-tun'd Instrument*; if the *Organ* be sound, duly tempered, and exactly adjusted, answering and corresponding with the Actions of the *Musician*, the *Musick* will be distinct, agreeable and harmonious. But if the *Organ* be spoiled and broken, neither duly tuned, nor justly fitted up, it will not answer the Intention of the *Musician*, nor yeild any distinct Sound, or true *Harmony*. Those therefore who are *tender* and *valetudinary*, lead *sedentary* Lives, or indulge *contemplative* Studies, ought to avoid Excesses of the *Passions*, as they would Excesses in *high Food*, or *spirituous Liquors*, if they have any Regard to Health, to the Preservation or Integrity of their *Intellectual* Faculties, or the *bodily Organs* of them. As the *Passions* when *slow* and *continued*, relax, unbend and dissolve the *Nervous*

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Fibres, so the sudden and violent ones screw up, stretch and bend them, whereby the Blood and Juices are hurried about with a violent *Impetuosity*, and all the *Secretions* are either stopp'd by the Constrictions, Cramps and Convulsions begot by them, or are precipitated, crude and unconcocted, and so beget or at least dispose toward *Inflammations*, *Fevers*, or *Mortifications*. *Hatred*, for Example, *Anger* and *Malice*, are but Degrees of a *Frenzy*, and a *Frenzy* is one Kind of a raging *Fever*. From all which, 'tis plain, the *violent* and *sudden Passions*, are more dangerous to *Health*, than the *slow* and continued, as *acute* Diseases are more destructive than *chronical*.

§. 5. To shew yet farther, the Influence of the *Passions* on the *Animal Oeconomy*, let us consider the different Constitutions of Men. Those who have very *springy*, *Lively* and *elastick* Fibres, have the *quickest Sensations*, a weaker *Impulse* producing a stronger *Sensation* in them. These generally excel in the *Animal Faculty* of *Imagination*. Hence the Poet,

— *Genus irritabile Vatum.*
Poets are soon provok'd.

And therefore, your Men of *Imagination* are generally given to sensual Pleasure, because the Objects of Sense yeild them a more delicate Touch, and a livelier Sensation, than they do others. But if they happen to live so long (which is hardly possible) in the Decline of Life they pay dearly for the greater bodily Pleasures they enjoyed in the youthful Days of their Vanity. Those of *rigid*, *stiff* and *unyeilding* Fibres, have less vivid *Sensations*, because it requires a greater Degree of Force to overcome a greater Resistance. Those excel most in the Labours of the Understanding, or the intellectual Faculties, retain their Impressions longest, and pursue them farthest; and are most susceptible of the slow and lasting Passions, which secretly consume them as *chronical* Diseases do. And lastly, those whose *Organs* of Sensation are (if I may speak

speaking so) un-elastic, or entirely callous, resty for want of Exercise, or any way obstructed, or naturally ill-formed, as they have scarce any Passions at all, or any lively Sensations, and are incapable of lasting Impressions; so they enjoy the firmest Health, and are subject to the fewest Diseases: Such are *Ideots*, *Peasants*, and *Mechanicks*, and all those we call Indolent People.

§. 6. We have before shewn, that weak *Limbs* and all the bodily *Organs* may be strengthened and repaired by proper Exercise. And there is no Doubt to be made, but the *Organs* of *Sensation*, and those the Mind uses in its *intellectual Operations*, may be likewise improved, strengthened and perfected by constant Use, and proper Application. And if by Excesses, an original bad *Conformation*, or any Accident, these *Organs* come to be spoiled, or by the bad State of the *Juices*, they be weakened in their *Functions*; then the *Medicinal* and *Chirurgical Arts* may take Place, and come in Play. But if the Passions be raging and tumultuous, and constantly fuelled, nothing less than *He*, who has the *Hearts of Men in his Hands*, and forms them as a *Potter does his Clay*, who stills the *Raging of the Seas*, and calms the *Tempests of the Air*, can settle and quiet such tumultuous, overbearing *Hurricanes* in the Mind, and *Animal Oeconomy*. Without such a *Miracle*, since the Soul and Body act mutually upon one another, and the *Tabernacle of Clay* is the weakest part of the *Compound*, it must at last be overborn and thrown down.

§. 7. In such a wretched Case I know no Remedy but to drown all other Passions in that Spiritual one of the Love of God. The Reasonableness and Justness of which Proceeding, and (what may seem a *Paradox*) the Usefulness of it to Health, and its benign Influence on the *Animal Oeconomy*, I shall endeavour to demonstrate. *Spiritual Love* is that Principle analogous to Attraction, spoken of in *Prop. IV.* 'Tis the *Tendency, Byass or Impulse* of the Minds of Men and other Spirits, towards the most amiable Objects, communicated by their Creator in

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their original Formation, by virtue of which, they constantly tend, press and urge to unite (and if Obstacles were removed, would unite) with one another, and be all united with their *Origin*. This Principle indeed, in this lapsed Estate of Man (where 'tis overlaid and buried under *Rubbish*, involved in so many other *Attractions*, and stifled with such *Letts* and *Contrarieties*, that its Action is felt but just enough to know that it is, and wants to be awaked with *Labour*, and excited with *Violence*, as the Scripture mentions, the *Taking the Kingdom of Heaven by Force*) on its first Developement and Expansion, and in its first Exercises, may be called a spiritual Passion, as 'tis the first *Motions*, Endeavours and *Velleities* towards the Love of God or Charity. But in its Advances, and final Perfection and Consummation, it discovers itself to be a Faculty, Quality, or inherent Power in the Soul, whereby it will act without Solicitation, Motive or Direction. As a Stone in a Wall, fastned with Mortar, compressed by surrounding Stones, and involved in a Million of other Attractions, cannot fall to the *Earth*, nor sensibly exert its natural *Gravity*, no, not so much as to discover there is such a Principle in it; just so the *intelligent Soul*, in this her lapsed Estate, being drowned in Sense, chained and fettered by Ignorance and Perverseness, drawn and hurried away by the Devil, the World and the Flesh, is disabled from exerting this inherent and innate Principle of *Re-union*, and wants sufficient Light on the Understanding, and a right Turn of the Will, to be put in a Capacity of exercising it. But in its proper Vacuity, and being freed from these Letts and Impediments, it would mount towards its Original, like an *Eagle* toward the *Sun*. Amiability, Pulchritude or Beauty, is as much the peculiar and proper Object of this Affection of the Mind, as Light or a luminous Body is of Vision; for Deformity, as such can never be loved. And Beauty or Perfection, is, in Reality and just Philosophy, Nothing but Analogy, Order, or just Proportion. From hence it necessarily follows, that in the Scale of Beings, all Objects ought to be loved in Proportion to their Degree of Beauty, Symmetry or Perfection. And consequently the highest

highest Perfection ought to be loved with the highest Degree of Love, and the several subordinate Degrees of Perfection, with proportionate Degrees of this Affection of the Mind. And since *Finite*, when compared with *Infinite*, vanishes quite, or becomes Nothing; it follows necessarily (since there is, and can be but one Object that is *Infinite*, *Good* and *Perfect*, and all others are but *Created* and *Finite Goods*; that is, in Comparison they are Nothing) that, according to the *eternal* and *immutable Laws* of Analogy, the *One supreme Good*, endued with *Infinite Perfection*, ought to be loved with a Love infinitely superior to our Affections for other Things, or (which is the same Thing in other Words) that, in Comparison, our Love to the Author of our Being, ought to be *infinite*; and that ourselves and other Objects, as being *finite* Creatures, none at all. This is the true *Philosophy* of this Matter, and as much a *Demonstration*, as any thing in *Numbers* or *Geometry* possibly can be; however it may be received by Men of *Self-Love* and *Carnal Minds*.

§. 8. Yet I would not be so understood, as if I condemned all subordinate and duly proportioned Regards for Ourselves and other Objects about us, that are necessary for our Support and Accommodation in our present State. No! There is a just and laudable Self-love, as well as a false and vicious one. If we love ourselves, as we love our Neighbours; if we love Ourselves as God loves us; if we love ourselves as we deserve to be loved by the infinitely perfect Being; if we love Ourselves with a just proportioned, and duly subordinate Love: That is, if we love ourselves with a *Finite*, and *Him* with an *Infinite Love*, or a *Love* increasing, and going on *in finitum*, that has neither Limits nor End: Then we love Ourselves as we ought; this Self-love is just and laudable, and has its due and proper Degree of *Reality* and *Existence*, in the Nature of Things. *Perfection*, or an Object perfect in its kind, or one that we think so, is the proper Object of our *Love*. And as in due *Analogy*, *Proportion* and *Order*, *infinite* Perfection requires *infinite* Love, or the highest Degree of *Love* we can give it; so all other
Objects

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Objects are to be loved with a Degree of *Love* proportioned to their *Perfection*. And since a Being of *infinite* Perfection can be but *one*, and all other Beings can have but a *finite* Degree of *Perfection*, we must love them but with a *finite* Love ; or, the Proportion of our Love to Him and them, ought to be, as *infinite* is to *Finite*. That is, comparatively we ought to love them with *no Love* at all ; but absolutely (or without comparing *created* Things, to the *infinitely perfect Being*) with their proper Degree of *finite* Love, according to their Rank in the Scales of Beings.

Coroll. Tho' from the Nature of the *Demonstration* I have given, that *God* is to be loved, it is evident he is to be loved, *infinitely* for Himself, and his own *infinite* Perfections, abstracting from all other Considerations, even that of our *own* Happiness, in the Enjoyment of, or Union with Him : Yet it is certain, these *Two*, our *Love* to *God*, and *our own* Happiness, cannot be actually separated. Pleasure consists in this, That the Soul and Body are affected, by the Objects that produce it, with an *harmonious* and *commensurate* Action or Touch ; for in their Original and *uncorrupted Make*, as they came from the Hands of their Creator, *both* separately, and *each* by themselves, and also in their Actions on one another, all was *Harmony* and *Concord*. As to the *Body* ; as nothing but a *musical* or *commensurate* Touch, can affect it with Pleasure, and as a *discordant* and *uncommensurate* Stroke creates a *Jarring*, *Grating* and *Obstruction*, which is Pain (this is evident in *Hearing*, where the agreeable Sensations of sonorous Bodies, are altogether *harmonious* ; Sir *Isaac Newton*, has made it plain in *Vision* ; And, no Doubt, it is so in all the *other* Senses.) So likewise as to the Soul ; *Truth*, and *Beauty* or *Perfection*, are the only Objects that give Pleasure to the *Understanding* and *Will*, its two *Cardinal* Faculties. And these are nothing but *Harmony*, or just Proportion in the respective Objects. And we have shewn, that the Union of the Soul and Body (or Life, the so much coveted Good) consists in a kind of *Harmonia præstabilita* (though a Kind very different from Mr. *Leibnitz's*) whereby an
harmonious

harmonious Touch or *Action* upon either of them, produces a pleasurable Sensation. Now as *Beauty* or *Perfection* gives *Pleasure* to both the *Parts* of the *Compound*, and as *Nothing* but the highest *Degree* of *Perfection* or *Beauty*, can give the greatest *Pleasure*, i.e. *Happiness*; it necessarily follows, that *Spiritual Love*, or the *Love of God*, as it is the only *Mean* of uniting us with the *One Being*, who is *infinitely perfect*, is also the only *Mean* of making us *infinitely happy*.

§. 9. As to the *second Thing* proposed concerning *Spiritual Love*, however *Foreign* these *metaphysical Speculations* concerning it may seem, to a *Discourse* about *Health* and *Long Life*; yet, if steadily believed, and their natural *Consequences* reduced to *Practice*, they would not only become the most effectual *Means* to prevent *Diseases*, but also, the most of any *Thing*, promote *Health* and *Long Life*. For, *first*, Were our *Love* proportioned to the *Order* and *Analogy* of *Things*; were our *Love* to the *Supreme Good* *infinite*, and that to others in *Comparison*, *none at all*; we should have but one single *View* in all our *Thoughts*, *Words* and *Actions*, viz. The promoting and raising that *supreme Love*, to its due *Degree* and *Elevation*; whereby all *Anxiety*, *carking Care*, and *Solicitude* about other *Things* (the *Source* of all our *Miseries*, and of many *Bodily Diseases*) would be cut off all at once. *Secondly*, Since *Love* always begets *Resemblance* of *Manners*; since the *Object* of this *Love* is *infinitely perfect*; if we loved him in the *supreme Degree*, we should *infinitely* endeavour to *resemble him*; whereby *Hatred* and *Malice*, *Luxury* and *Lewdness*, *Laziness*, and all the other *Seeds* of *Bodily Diseases*, would be altogether destroyed. *Thirdly* Since *Spiritual Love* is not only the noblest, but also, the most joyful and pleasant *Affection* of the *Mind*; since the *Object* of our *supreme Love* (as an inspired *Poet* expresses it) has *Fulness of Joy in his Presence*, and *Rivers of Pleasure at his Right Hand for ever*; and since our *Joy* and *Happiness* will always rise in *Proportion* to our *Love*; the *Placing* our *supreme Love* on the *supreme Good*, would render us *infinitely joyful*, *serene*, *calm* and *pleased*;

fed; than which, certainly, no Man can imagine a more effectual Means of *Health and Long Life*.



RULES of Health and Long Life, *drawn from the Head.*

Of the PASSIONS.

1. **T**HE *Passions* have a greater Influence on *Health*, than most People are aware of.
2. All violent and sudden *Passions*, dispose to, or actually throw People into *acute Diseases*; and sometimes the most violent of them bring on sudden Death.
3. The slow and lasting *Passions*, bring on *chronical Diseases*; as we see in Grief and languishing hopeless Love.
4. Therefore, the *sudden and acute Passions* are more dangerous than the *slow or chronical*.
5. Men of lively Imaginations and great Vivacity, are more liable to the *sudden and violent Passions* and their Effects.
6. Thoughtful People, and those of good Understanding, suffer most by the *slow, and secretly consuming Passions*.
7. The Indolent, and the Thoughtless, suffer *least* from the *Passions*: The Stupid and Ideots *not at all*.
8. The Diseases brought on by the *Passions*, may be cured by Medicine, as well as those proceeding from other Causes, when once the *Passions* themselves cease,
or

or are quieted. But the preventing or calming the Passions themselves, is the Business, not of *Physick*, but of *Virtue and Religion*.

9. The *Love of God*, as it is the sovereign Remedy of all *Miseries*, so, in particular, it effectually prevents all the Bodily Disorders the Passions introduce, by keeping the Passions themselves within due Bounds; and by the unspeakable Joy, and perfect Calm, Serenity and Tranquility it gives the Mind, becomes the most powerful of all the Means of *Health and Long Life*.



CHAP. VII.

*Containing those OBSERVATIONS
that came not naturally under the fore-
going Heads.*

§. I. **M**ENTION having been so often made of *Chronical*, and sometimes of *Acute* Distempers, it may be convenient here, to suggest to the Readers, as clear an Account of their Nature and Difference, as I possibly can. *Acute* Distempers, then, are understood, such as within some short limited Time have their Periods, either of a perfect *Crisis*, and subsequent Recovery, or of putting an End to the Distemper and Life both together; and therefore called *quick, sharp or acute* Distempers, whose Symptoms are more violent, their Duration shorter, and their Periods more quick, either of *sudden Death*, or a glorious *Victory* over the Disease. These are generally limited within *Forty Days*. And those that run out longer, turn into *chronical* Distempers, whose Periods are

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more slow, their Symptoms less severe, and their Duration longer. They too (if new Fuel were not administred to them) would, by the Course of *Nature*, and the *animal Oeconomy*, have their Periods, and terminate at the last.

The *Viscidities* of the *Juices*, and the *Flaccidity* of the *Fibres*, would in a great Measure, and to some very tolerable Degree, by proper Remedies and a due Regimen, be removed, and the Party recover in *these*, as well as *acute Cases*. But this requiring long Time, much Care, and great Caution; unwearied Patience and Perseverance, and so long a Course of Self-denial, as few People are willing to undergo, it is become the *Reproach* of *Physick* and *Physitians*, that *acute Cases* cure themselves (or rather, *Nature* cures them) and *chronical Cases* are never cured. But both the Branches of the Reflexion are equally false. In the first, *Art* and *Care*, judiciously applied, will always alleviate the Symptoms and Suffering, will help on *Nature* to the Relief she points out, and quicken the *Crisis*, which it will constantly bring about, if the *Distemper* is not too strong for the Constitution. And even then it will mitigate the Pain, and lay the Patient gently and easily down. But in the *last Case*, if due Care be had, to follow timeously the Advice of an *honest* and *experienced Physician*, a *Period* certainly may be brought about to most *chronical Distempers*, where the great *Viscera* are not spoiled and destroyed. The Failing is in the *Patient* himself, who will not, or cannot, *deny himself* for a time sufficient to bring about the Cure. Some *chronical Distempers* indeed are such, either by having gone too far, or by being *hereditary*, and interwoven with the Principles of Life, as never to be totally overcome. And then 'tis a Piece of great Wisdom, to know how far their Constitution will go, and sit down contented with that Measure of Health their Original Frame will admit of. But of this I am morally certain, If the Rules and Cautions laid down in this Treatise, be carefully, steadily, and constantly observed, few *chronical Distempers* but will receive such Relief and Alleviation by them, as to make Life tolerably easy, and free from grievous Sufferings: And, in the mentioned Case, that is all that is left for

for Art to do. But in other *chronical* Distempers, taken in *due* Time, where the *Viscera* are not quite spoiled, they would infallibly bring about a *final Period*, and perfect Cure. The most certain distinguishing Mark of an *acute* Distemper, is, To have a *quick* Pulse; that of a *Chronical*, To have a *slow* one. The first will exhaust the *Fluids*, and wear out the *Solids* in a *short* Time; whereas the last will require a longer Time to produce the same Effect. Some *chronical* Distempers, especially towards the last and *fatal* Period, turn *acute*. And some *acute* ones terminare in *chronical* Distempers. But this *Mark* will not only keep them distinct; but also point out, when *acute* Distempers have *chronical* Remissions or Intermissions, and when *chronical* Distempers have *acute* Fits or Paroxysms.

§. 2. Some Persons who are extremely healthy and sound during their younger Days, about, or soon after the *Mereidian* of Life (that is, about Thirty-five or Thirty-six, according to the Observation of an inspired King) fall into *chronical* Distempers, which cut them off in few Years, or make them miserable all the rest of their Lives. Thus *Consumptions* prove mortal to some about that Time. Thus *Stone* and *Gravel*, *Gout* and *Rheumatism*, *Scurvy* and *Dropsy*, *King's-Evil* and *Skin-Diseases*, either make their first Appearances, or shew themselves in their true *Type* about this Time of Life. The Reason is, While the *Juices* are sweet, sufficiently thin and fluid, but especially while the solid Organs, the Membranes and Fibres, are yet but unfolding, stretching and drawing out to their full Dimensions, and any *Acrimony*, Sharpness, or *Corroding* Humour, can affect them no other Way, than by making them *vibrate*, and so extend themselves farther and farther. For as Pain, so these sharp Salts, by their *Twitching* and *Irritations* on the tender *Fibers*, make them only contract and so draw at both Extremities, and thereby unfold and extend themselves farther; so while the original Foldings and Complications of the *Solids* are not yet quite extended, this *Irritation* serves only to draw them out, and does not hurt them, 'till they are

arrived to their full Extent, which generally happens about *Five and twenty*. It takes a due Time after that for these sharp Humours to exalt themselves to their utmost *Acrimony*, to corrupt and putrify the Juices, and also some more Time to wear out, to obstruct and break the great *Organs*, and their smaller *capillary* Vessels. The Sum of all which, brings the Periods of the great Attacks of these Distempers to the mentioned Time of Life. Those in whom the *original Taint* is deeper and more radical, and the natural Constitution weaker, suffer under these Attacks sooner. And those in whom it is slighter and more superficial, and whose Complexion is stronger and more hardy, hold out longer. But the Generality suffer first, eminently, about the *Meridian* of Life. Hence the common Observation of those that die of a genuine *Consumption*, that they begin to feel it first before *Thirty-six*.

§. 4. There is no *chronical* Distemper whatsoever, more universal, more obstinate, and more fatal in *Britain*, than the *Scurvy*, taken in its general Extent. Scarce any one *chronical* Distemper but owes its Origin to a *Scurbutick Cachexie*, or is so complicated with it, that it furnishes its most cruel and obstinate Symptoms. To it we owe all the *Dropsies* that happen after the *Meridian* of Life, all *Diabetes*, *Asthma's* *Consumptions* of several Kinds, many Sorts of *Cholicks* and *Diarrhaeas*, some Kinds of *Gouts* and *Rheumatisms*, all *Palsies*, various Kind of *Ulcers*, and, possibly, the *Cancer* itself, and most *cutaneous* Foulnesses, weakly Constitutions and bad Digestions, *Vapours*, *Melancholy*, and almost all *nervous* Distempers whatsoever. And what a plentiful Source of Miseries these last are, the Afflicted best can tell. And scarce any one *chronical* Distemper whatsoever, but has some Degree of this *Evil* faithfully attending it. The Reason why the *Scurvy* is so **endemick* a Distemper, and so fruitful of Miseries, is, that it is produced by Causes mostly special and particuliar to this *Island*; to wit, the indulging so much in *animal Food*, and strong fermenting Liquors, in

* Peculiar to this Country.

contem-

contemplative Studies and sedentary Professions and Employments (and thence the Want of due Labour and Exercise) together with the nitrous Moisture of an Island, and the Inconstancy and Inclemency of the Seasons thence arising. I have had many Occasions to shew, how such Causes must necessarily and naturally produce such Effects. I will here only touch the Matter slightly, to point out the Connexion. Animal Foods and strong Liquors to Excess, and with continuance, must load and charge the Fluids, with their Salts. Want of due Exercise must suffer these to unite in Clusters, and increase their Bulk in the small Vessels. Their larger Bulk, and greater Acrimony, thence arising, must increase the Viscidity of the Fluids, by breaking the Blood Globules, and so coagulating the Mass and at last obstruct the finer Pipes, and all the smaller Glands: Whereby the Tone of all the elastick Fibres must be interrupted and broken, and their Vibrations stopt at every obstructed Gland and capillary Vessel, and an universal Disorder produced in the whole animal Oeconomy. And this Disorder will operate, and shew it self in Symptoms special and particular, according to the special and particular Make and Conformation of the Parts, the Weakness or the Strength of the Organs, the particular Mismanagements, and precise State of the Air the Party lives in. And the Detail of these general Causes applied to particular Persons, must produce the respective Diseases mentioned. In a Word, the Scurvy is a kind of Catholick Distemper here in Britain, arising from constant and general Causes, from the Customs of the People, and from the Nature of the Climate, which renders the serous Part of the Blood too thick and glewy, breaks and divides the Union of the globulous Parts, obstructs the small Vessels, and destroys the Springiness and Elasticity of the Fibres. So that most chronical Distempers, can be little else, but Branches and Cions from this Root, which (like Pandora's Box) is so fruitful of Variety of Mischiefs. And its arising from the Climate and Customs of the People, is the Reason why chronical Distempers are so frequent in Britain, to what they are in warmer Climates (which, by a freer Perspiration and lighter Diet, not only prevent those Diseases

Diseases in their own *Inhabitants*, but universally cure those of our *Island* who are afflicted with them, if they flee to those *Regions* any *reasonable Time* before *Nature* be quite worn out) For tho' the *Inhabitants* of *Britain*, live for the most Part as long, or rather longer; than those of warmer *Climates*, yet scarce any one, especially those of the better Sort, but becomes *crazy*, and suffers under some *chronical* Distemper or other before they arrive at *old Age*. The same Reason is to be assigned for the Frequency of *Self-murders* here, in *England* especially, beyond any other Country. For few have *Grace* and *Resignation* enough, to suffer patiently the lasting Pains of a *chronical* Distemper, or the yet more torturing and crucifying *Anguish* of a perpetual *Dispiritedness*; though I have observed *generally*, and have good Reason to conclude *universally*, That all *Self-murders* are first *distracted* and *distempered* in their *intellectual* Faculties. Notwithstanding the *Diffusiveness* and *Universality* of this Disease, so, that scarce a single Individual of the better Sort is altogether free from it; yet I never once in my Life saw it *totally extirpated*, in those who had it to any Degree, so as to be intirely free from it all the rest of their Lives after; but that it still appeared, and sprang up again in some *Symptom* or other, and at last brought forth that *grand one*, which put a *final Period* to all their Sufferings. One good Reason for this is, that it requires a *Regimen* and *Conduct* so intirely contrary and opposite to the *natural Habits* and *Customs*, and the universal *Bent* and *Appetites* of the *Inhabitants* of this *Island*, that it becomes a Kind of perpetual *Self-denial* to them; which the *British* Nation, in general, does not mightily admire. An other Reason is, that *fine Folks* use their *Physicians*, as they do their *Laundresses*, send their *Linnen* to them to be cleaned, in order only to be dirtied again. Nothing less than a very moderate Use of *animal Food*, and that of the Kind which abounds least in *urinous Salts* (as most certainly the Young and the Lighter-colour'd do) and a more moderate Use of *Spirituos Liquors*, *due Labour* and *Exercise*, and a careful Guarding against the *Inconstancy* and *Inclemency* of the *Seasons*, can keep this *Hydra* under. And Nothing else than a total Abstinence from *animal Food*

Foods, and *Strong fermented Liquors*, can totally extirpate it. And that too, must be begun early; before, or soon after the *Meridian of Life*; or else there will remain too little *Oil in the Lamp*, the *Spirits* will sink too far, ever to be recovered again; and the remaining part of *Life*, will be too short for so total a Change as must be made. So that those who suffer greatly under this *British Distemper*, must be contented to *bear and forbear* a little, and must expect no greater *Degree of Health*, than their *Time of Life*, the Nature of their Disease, and the State of their Constitution will admit of. But still a great Moderation in *animal Foods*, and *spirituous and fermented Liquours*, due *Exercise*, and a Care to fence against the *Injuries* of the Weather, will make *Life* tolerable easy; especially if some gentle domestick *Purges* be interspersed. The Seeds and young Sprouts of Vegetables, have scarce any gross, *fixed*, or *essential* Salts at all in them. This is not only evident from the Reasons formerly given (because they are young, or the Nourishment appointed by Nature for young Vegetables; for the Earth is only a proper *Nest* or *Matrix* for them; and the Sun's Heat serves them instead of *Incubation*) but upon

* *Trial* and *Examination*, they yield none, being too light and thin to *calcine* and *incinerate*, and the Salts too *volatile* (and consequently small, and fit to pass by *Perspiration*, and thereby can be no way injurious to *Human Constitutions*) to endure the *Fire*; which full-grown *Plants*, their Stalk and Wood, readily do. And in *unfermented Liquors*, the Salts are so *enveloped*, that they cannot unite to form a Spirit, and are so *sheathed*, by particular Coats of the *Materials* of the *Vegetable*, that they can scarce do any harm (except when they exceedingly abound) to *animal Bodies*. Hence it comes to pass, that a *vegetable Diet* for a few Weeks or Months, together with drinking Water or unfermented Liquors (such as *Tea*, *Coffee*, *Barley-Water*, *Liquorice-Water*, *Teas* made of *Oranges*, or other Seeds and Plants) will fasten the Teeth when dropping out, from a *Consumption* of the *Gums* by *scorbutick Salts*, cure any *cutaneous Foulness* or Eruptions,

* See Lowth. Abridg. of the Phil. Trans. v. 2. p. 661.

Eruptions, and even any spreading *Ulcer*, if it is not *Scrofulous*, when no Medicine on the Face of the Earth will touch it. Hence the grand *Maxim* in the Cure of all *Ulcers* is, by *Diet* to bring them to the State of a *Wound*, and then they will cure of themselves. And, as I have elsewhere observed, there is scarce a *thin, consumptive, hysterick, or hypocondraick*, and weakly Constitution in *England*, which has not for its Parent, a latent or manifest *scrobutick Cachexy*, excepting that which arises from a *Scrofula*. From the whole we may gather, how much a proper *Regimen of Diet*, and due *Exercise*, with the other *Helps* and *Remedies* already mentioned in this *Treatise*, is able to do in most *British* chronical Distempers.

§. 4. Having had so often Occasion to speak of weak and relaxed Nerves, it will not be amiss to suggest, some of the outward and most sensible Signs and Characters, whereby it may be manifest, whether one's self, or any particular Person he is concerned for, be of this Make and Constitution, before some chronical Distemper, or other dismal Symptom has made it plain; in order to prevent these as far as possible. To which Purpose we must observe, that the Nerves are Bundles of solid, springy, and elastick Threads or *Filaments* (like twisted Cat-Guts or Hair) whose one Extremity is terminated at the common *Sensory* in the Brain, where the Soul is supposed to reside; the other is interwoven into every Point of the *Scarf-skin*, the *Membranes*, the *Coats* of the *Vessels*, the *Muscles* and the other sensible Solids of the Body, in order to convey the Motions, Actions, Vibrations, or Impulses of outward Objects to the Soul. These Threads or *Filaments* are highly elastick or springy, as we may see from their hardened Substances, such as *Whalebone*, *Ivory*, *Horn*, and *Cartilages*, which are more eminently so, than any other Bodies known. Some Persons have their *Fibers* very quick, readily vibrating, highly springy and elastick, so as to tremble and shake violently, by the least Impulse. Others have more rigid, firm, and stretched *Fibers*, which yield not but to strong Impressions, and
move

move slowly, but move for a long 'Time. Lastly, There are those who have *weak, loose, slender, and relaxed Fibres*, which, though easily moved, and yielding to the weakest *Impulse*, yet communicate only *imperfect, languid and faint Impressions and Vibrations* to the Soul, and have all their other *Animal Functions* of the same languishing Nature. And 'tis of these last, I have been all along speaking. And we may readily discover them, by these outward *Characters and Signs*. 1. Those who have naturally *soft, thin, small, and short Hair*, are of a *loose, flabby, and relaxed State of Nerves*. For the *Hair* seems to be some of the fleshy *Fibres*, only lengthen'd outwards and harden'd. At least, like the *Fibers*, they consist of a great many lesser *Filaments* contained in a common *Membrane*, are solid *transparent and elastick*. And as these *Hairs* are in *Strength and Bulk*, so generally the *Fibres* of the Body are. 2. Those of the *fairest Hair*, are of the loosest *Fibres* (other things being equal) because the *Fairest* are more *rare, porous, and fungous*; And because Bodies of the lighter Colours, consist of *smaller Parts* than those of the more flaming Colours; as has been formerly observed. 3. Those of large, or (as they are called) *mastiff Muscles* and of *big Bones*, are generally of a firmer State of *Nerves*, than those of little *Muscles and Bones*: Because the *Muscles and Bones* being *similar* to the *Fibres*, as is highly probable, and these being *bigger*, and consequently stronger, so must those be: And, on the contrary, 4. *Soft, yielding, pappy Flesh*, is a sure Symptom of loose *Fibres*; whereas *hard, firm, and unyeilding Muscles*, are the constant Sign of firm *Fibres*. 5. A *white, fair, blanch'd, or ashen-coloured Complexion or Skin*, constantly indicates a *weaker and more relaxed State* of the *Fibres*, than a *ruddy, fresh, dark, fallow, or black Hue*; for Reasons already given. 6. A fat corpulent and flegmatick Constitution is always attended with *loose flabby and relaxed Fibres*, by their being dissolved and oversoaked in *Moisture and Humidity*. And on the contrary, those of a *dry, clean and firm Make*, have *strong, firm and tense Fibres*. 7. Those who are subject to *Evacuations* of any Kind, in any Degree greater than what is natural; and

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those who by any Accident, have suffered long by any *preternatural Evacuation* whatsoever, are, or become of *loose, relaxed Fibres* and *Nerves*. Thus those who frequently run into *Purging*, or Floods of pale *Water*, flow at the Mouth or Nose, or *melt* into profuse *Sweats*; those who any Way have lost much *Blood*, have had a *Diarrhœa*, have recovered of a *Fever*, and those of the Sex who have purified longer or more than is usual; all of these are originally, or become accidentally of *weak and relaxed Nerves* and *Fibres*. 8. *Lastly*, Those who are of a *cold Constitution*, are apt to run into *Coldnesses* on their Extremities, or ready to catch *Cold*, are also of *weak and loose Fibres* and *Nerves*; because these are Signs of a *slow and interrupted Circulation* and *Perspiration*; which manifests a weak *Spring* in the *Fibres* of the *Coats* of the *Vessels*, the *Fibres* of the *Muscles*, and a *Weakness* of the *Spring* of the *Scales* of the *Scarf-skin*.

§. 5 On this Occasion of rehearsing the Signs of weak *Nerves*, I cannot omit *apprising* those of the breeding part of the Sex, and those who are concerned in them, of their Readiness of *Miscarrying*, unless duly tended and managed, especially those of them of *tender and weak Nerves*, or of too *delicate* a Constitution. The Signs I have now laid down, will always make it evident, if any particular Person is so or not. And if upon Examination they be found to be *such*, they will be apt, upon the slightest Occasion, to run into frequent Miscarriages; whereby a great Part of their *Posterity* will be destroyed, and they themselves exposed to *Dropsies* and *Consumptions*, or (which is worse than either) perpetual *Lowness* of *Spirit*, *Vapours* and other *Hysterick Disorders*. And by this Misfortune alone, a considerable Part of the *better Sort* here in *England*, perish and are lost. Nature has formed the Generality of the Sex, of a *soft, slender, and delicate Make*. Want of due Exercise, a full *Table*, indiscreet *Nurses*, overfond *Mothers*, and *Hereditary Sharpness*, make them much more so. And if by Neglect or Accident, they once begin to *miscarry*, every *first Miscarriage* paves the way for a *second*, and a *third*, and so on, till the

the poor, pretty Creature, has neither *Blood* nor *Spirits*, *Appetite* nor *Digestion* left. For one Miscarriage weakens the Constitution, breaks and tears the *nervous* System more, than two *mature* Births. If ever this is to be secured or prevented effectually, 'tis to be done, at least attempted, in the *first* Instance, if possible, at least as soon as may be, before a total *Relaxation* and *Disolution* of the *nervous* System is brought on. The *Giddiness*, *Romping*, and *Gadding* about the young Creature herself, is often the Cause of her *Miscarriage*. But often the Forwardness and Indiscretion of *Surgeons* and *Midwives*, by *bleeding* on every little threatening Symptom, without consulting the Constitution. Bleeding may do well enough in *sanguine*, *robust*, and *plethorick* Constitutions: But 'tis *Death* and certain *Ruin* to those of *slender* and weak *Nerves*, and the surest *Way* to cause the *Miscarriage* 'tis designed to prevent, by *relaxing* the *Nervous* Fibers which Bleeding does as certainly, as it lessens the *Quantity* of the *Blood*. The most effectual *Method* I have ever found to prevent such *Misfortunes*, is, To order those in such Circumstances, to drink plentifully of *Bristol Water*, with a very little *red Wine*, for their constant *Drink*; to lay the *Plaister ad Herniam*, with *Oil of Cinnamon*, and *London Laudanum*, in a due Proportion, to their *Reins*; to keep them to a *low*, *light*, *easily digested* Diet, especially of the *farinaceous Vegetables*, and *milk Meats*; to strengthen their Bowels, with *Dioscordium*, and toasted *Rhubarb*, if they become too *slippery*; to air them once or twice a Day, in a Coach or Chair, and to keep the cheerful, and in good *Humour*, as much as may be. This Method will scarce ever fail, unless a latent *Scrofula*, or some other *Hereditary Sharpness* in their *Juices*, destroy the *Birth*.

§. 6. The Tender, Sickly, and those of weak *Nerves*, ought to have a Regard in the Conduct of their *Health*, to the different *Seasons* of the Year. I have elsewhere * observed, that such *Constitutions* begin to sink, droop and languish about *Christmas* or *Midwinter*, go on from

* Essay on the Gout.

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worse to worse till the Spring is over, get up a little, as the Sun grows *higher* and *stronger*, arrive at their Meridian *Altitude* of Health and Strength about *Midsummer*, and hold it out so long as the Sun warms them, or the Strength they have acquired lasts. Those who have very weak *Nerves*, fail sooner, even about the *Autumnal Equinox*: But they get up *sooner*, because their weaker *Nerves* make less Resistance. The *Sun* new ferments, rarifies, and exalts their *viscid Juices*: So that the Circulation is better performed, more full, free and universal. The *Perspiration* is also thereby much encreased and promoted: And the Load being drawn off, by the Force of the *Sun's* Heat; their Appetite is sharpen'd, and their Digestion mended: To which the serene, warm and clear Air, and the greater Liberty of Exercise and Business contributes. I should advise such therefore, religiously to follow the Indications of Nature, and to take these Benefits it offers then, as a certain Sign of their being best and fittest for them. After *Christmas* and in the Beginning of the *Spring*, *Milk*, *Eggs*, and *Spring-Herbs*, as *Asparagus*, *Spinach*, and *Sprouts* come in first; of which I advise them, to make the greatest Part of their Diet then. As the *Spring* advances, *Lamb* and *Veal*, *Green Pease* and *Sallading* abound. After the *vernal Equinox*, *Chicken* and *Rabbit*, young *Turkies* and *early Fruit* come in Season. About *Midsummer*, *Mutton* and *Partridge*, *Colliflower* and *Artichok* may be had. And *Autumn* brings in *Beef* and *Venison*, *Turnip* and *Carrot*. And it will be found, the *concoctive Powers* of weak Persons, and those relaxed *Nerves*, rise and fortify gradually, as these stronger Foods come in Season. By Season, I mean, not those earlier Days, that *Luxury* in the Buyers, and *Avarice* in the Sellers about *London*, have forced the several Kinds of *Vegetables* and *Animals* in. But by Season, I mean that Time of the Year, in which by Nature, common Culture, and the mere Operation of the Sun and Climate they are in most Plenty and Perfection in this Country. But the principal Point I would urge is, that such Persons would regularly begin to correspond with Nature, in both lessening the Quantity, and lowering the Quality of

of their Food as the Seasons indicate, and Providence provides the proper Food in greatest Plenty and Perfection. By which they will preserve the Ballance of their Health pretty near equal all the Year round, have the lightest and least Food, when their *concoctive Powers* are least, and their *nervous Fibres* weakest, and rise in the Food, in Proportion as these rise. Add to these, that as *Winter* is best for home Exercises, *Summer* is fittest for those without Doors. And as the Day lengthens, their Labour and Exercises abroad ought to be lengthened out. Neither *Sydenham* nor *Fuller*, have been able to tell the Half of what obstinate *Exercise* will do, in low, cachectick consumptive Cases.

* ——— *Labor omnia vincit*
Improbis ——— HORAT.

* q. d. *Unweary'd Exercise will overcome any chronic Distemper.*

§. 7. The *Germaines* have a Proverb, That wise Men ought to put on their *Winter Cloaths* early in *Autumn*, and put them off late in the *Spring*. By which they would insinuate, that People ought always to go *well-clothed*. Whatever may be in this, as to Persons that drink hard, and require a plentiful *Discharge* by the Skin, those who are *sober*, or who would render themselves *hardy*, ought to accustom themselves to as few Cloaths, both in Summer and Winter, as is possible. Besides the general Rule, of having as few Necessaries as may be; much and heavy Cloaths, attract and draw too much by *Perspiration*; as *Dr. Keill* proves, in his *Med. Static. Britann.* tender and debilitate the Habit, and weaken the Strength. The Custom of wearing *Flanel*, is almost as bad as a *Diabetes*. Nothing can enfeeble and drain weak and tender Persons more. To make this clear, we must distinguish between *Perspiration* and *Sweating*; which differ as widely, as the daily natural *Emptying* our Bowels, and a *Looseness* or *Diarrhæa*. And as no Body in their Senses, much less the Tender and the Weakly, would endeavour to encourage

courage this last; no more ought they that other of Sweating. For as promoting *slippery Bowels*, would always keep the *Fibres* of the *alimentary Passages* relaxed; so would perpetual *Sweating*, those of the Skin. And as the *Moisture* and *Damps* that *Flanel* perpetually keeps the Skin in, and its growing so readily *dirty*, shews what a Flux of *Perspiration* it promotes there; so the perpetual *Friction* produced by it, gives the Reason. If one lays on a superfluous Load of *Strong, Liquors*, 'tis happy for him Nature discharges the *Ocean* any how; for he had better *sweat*, than burn in a *Fever*. But for *temperate tender*, and *sickly* Persons, the more *firm* and *tight* all the *Organs* of their *Evacuations* be (if they be not totally obstructed) the better it will be for them, the more it will strengthen the *Nerves*, and harden their *Constitution*. Nothing but Superfluity in *Food* or *strong Liquors*, requires *Sweating*: And that is the Reason, the *Germaines* run

so much upon it. So far, that **Tschirn-*
 * In his *Medicina Mentis & Corporis*. *haus*, a very learned and ingenious *Gentleman* otherwise, resolves the Cure of almost all *Distempers* into *Sweating*, upon observing its Success in their *Bottle-Fevers*. They drink much *thin sharp Wine*, which passes every way; and when it comes through the Skin, both the *Conflict* and the *Danger* is over. But for those *Inhabitants* of our *Island*, who are *sober* because they are *tender*, or would preserve their *Health*; the *lighter* and *fewer* their *Cloaths* are, both by *Night* and by *Day*, in *Summer* and *Winter*, the *hardier* they will grow. The more open the whole *Body* is to the *Air*, provided it be *benign*, the more *fluid*, and the more *active*, will the *Animal Juices* be; and by consequence, the more *full* and *free* will the *Perspiration* be. For right tempered *Air*, is *beneficial* and *medicinal* to the *Animal Juices*: And a great *Heap* of *Cloaths*, only *condenses* our own *excrementitious Atmosphere* about us, and stops the kindly *Influence* of this *beneficial Element*. As to catching *Cold*, he that lives *soberly*, and avoids *nitrous*, that is, *moist* or *frosty Air*, will either not readily catch *Cold*, or if it does, will soon get rid of it. It is only *Air* thus conditioned, that *thickens* and *coagulates* our
 Juices,

Juices, and gives painful and dangerous Colds. It is inward *Heat* only, which destroys us. No sober Persons ever suffered by Cold, unless it were *extreame*, or that they expose themselves obstinately to it, against *Sense* and *Reason*.

§. 8. Another means of *Health*, to the *Tender*, *Studious* and *Sedentary*, is much and often shaving the *Head* and *Face*, and washing, scraping, and paring their *Feet* and *Toes*. The great Benefit (besides the Pleasure) to the *Head*, *Eyes*, and *Ears*, by often shaving the *Head* and *Face*, and washing them Daily in cold Water, with a few Drops of Compounded *Spirit of Lavender*, or *Hungary Water*, is best understood by those that have felt it. The Cutting off the *Hair*, and shaving the *Head*, will, in the first Instance, scarce fail to cure the *Head ach*, a *Fluxion*, or even a nervous Weakness of the *Eyes*. Any one *Evacuation*, will not only lessen the whole *Mass*; but, if encouraged, will make that *Evacuation* more ample and full. The more and oftner the *Hair* is shaved, the faster and thicker it will grow. So that thus shaving the *Head* and *Face* frequently, will be like an *Issue*, or perpetual *Blister* on these Parts. Besides the Washing with warm Water and Soap, and the Scraping the Skin with a Razor, will cleanse the Mouths of the *Perspiratory Ducts*, from the *Morphew* and Scurf that adheres to them, and will extremely encourage the *Perspiration* from these Parts, and give a full and free Vent to the Fumes on the Head and Brain. And washing well and dipping in cold Water afterwards, will shut the Scales of the Scurf-skin, and secure against catching Cold in the Head, which is frequently a heavy Grievance to tender, studious and sedentary Persons. Therefore I should advise such, to shave both Head and Face every Day, or every other Day, or as often as they possibly can, and wash them well in cold Water afterwards. What shaving does to the upper Parts, the same do Washing and scraping the *Feet*, and paring their *Nails* to the lower. We know by the *Ticklishness* of the *Soles* what a Multitude of fine *Nervous Fibres* terminate in them. Walking, Standing and Treading,

ding, render them callous, and the Skin thick and hard ; which much injures the *Perspiration*, and hinders the Derivation of the *Blood* and *Spirits* into them. And 'tis a common Observation, that Nothing is a surer Sign of a strong and rank Health, than a kindly *Heat*, and a profuse *Perspiration* on the *Feet*. It shews a full and free Circulation in the small Vessels, at the greatest Distance from the Source of Heat and Motion; than which, Nothing can more plainly indicate great and good Health. On the contrary, weak and tender Persons, are always cold in the Legs and Feet, and first of all feel Cold there in *frosty* Weather. Let the Tender therefore and the Weakly, duly once a Week, wash in warm Water, rub, scrape, and pare their *Feet* and *Nails*. Which will likewise prevent *Corns*, *Hardnesses*, and the unnatural Tendency of their *Nails* into the Flesh. These are, 'tis true, but low and seemingly trifling Observations towards Health ; but 'tis in this Case, as 'tis a more momentous one ; *He that despiseth little Things, shall perish by little and little.*

§. 9. - Those tender and valetudinary People, whose Studies or Profession oblige them to read or write much, ought as far as they possibly can, to stand in an erect Posture, bending their Head and Breast as little as may be, leaning only on a sloping Desk, and continuing their Exercises in that Posture, 'till they grow weary; then rest, and be at it again. Custom and Practice obstinately persisted in, will at length render the Posture easy to them. And 'tis inconceivable, how many and great Advantages it will bring to the Constitution. Sitting, Bending, and leaning low, compress some, if not many of the *Vessels* of the Body; and so stop and retard the Circulation of the *Blood* and *Juices* through them; which makes a more ready Flux through the other more patent and previous ones. Whence that Sleepiness and Disability to Motion in the *Limbs*, 'till the *Blood* and *Spirits*, by a proper Posture, get a free Admittance into them. From this also, there ensues an unequable and subsultory Circulation of the *Juices*, and an unequable Secretion in the *Glands*; and consequently, an unequal Growth, Strength, and Vigour

Vigour of the *Organs* and *Parts*, Which is the Cause of *Rickets* in *Children*; careless *Nurses*, neglecting to rock; dandle and toss them sufficiently, that the Circulation of the *Juices* and *Spirits* may be equally promoted every where. And to avoid this Inconveniency, seems to be the Reasons why the *Romans* and the *Eastern Nations* lay along, at their great *Meals* and *Feasts*, and when they were obliged to continue long in one Posture. Besides, that in *Writing* or *Reading*, if one sits, there is a constant Pressure on the Cavity of the *Breast* and *Stomach*, which must necessarily weaken their Functions; and these are commonly the *Organs*, which first decay in *Clerks* and *Under-Secretaries*. And hanging down the *Head*, is the ready Way to raise *Fumes* and *Vapours* to it: Whereby such will be exposed to *Lowness* of *Spirits*, and perhaps *Consumptions*; all which are, in a great Measure, avoided by an erect Posture: For thereby all the *Organs* will be in their natural Situation. Many of the *Muscles* will be in Action, and so press on the *Blood Vessels*, to facilitate the Circulation. But chiefly, by this erect Posture, the *Juices* will have the Advantage of their own *Gravity*, to descend with the greater Velocity, to warm and cherish the lower *Parts*, which are remotest from the Source of Motion; and the grosser Evacuations will be more readily promoted, and thereby preserve the upper Regions clear and serene: Which will bring great Advantages towards *Health* and *Long Life*. But this Practice will never become easy, unless to those who begin young. Those who dictate or consult, ought to do them standing or walking; which would relieve both *Body* and *Mind*.

§. 10 The *Unwieldy*, *Fat*, and *Overgrown*, besides the Rules already laid down, I advise in particular, as much as is possible for them, to abstain from *Drink* of all Kinds. No one *Rule* or *Condition* ever was contrived, or can be of so great Use, to preserve and lengthen the Lives of such, as an obstinate and universal *Abstinence* from all Kinds of *Liquors*. If the Doctrine be true, (as 'tis highly probable, that the Mass of all the Bodies of *Vegetables* and

Animals is only *Pipes* and *Vascular Tubes*, formed all at once, in their first Rudiments and Seeds; then Growth and Increase of Bulk, is only filling and plumping up, dilating and unfolding these Pipes with Liquors. We know from *Kircher's* and *Dr. Woodward's* Experiments, to what Bulk *Vegetables* will thrive, by mere Element alone. Two *Pigs* of the same Litter, were fed upon an equal Quantity of *Milk*; only, to one of them, the *Milk* was mixed with the same Quantity of *Water*. After a Month's Feeding, they were both killed, and that which had the *Water*, was found much larger and fatter than the other. *Dropsies* (at least *Anasarca's*) have been cured by an obdurate Forbearance of *Drink*. And *Lethargies* proceed from the Moisture of the *Brain*. And these are the two Distempers, *Unwieldy*, *Fat*, and *Overgrown* Persons are most subject to. Therefore such ought to

† i. e. Dread avoid *Drink*, as those do, who have the of *Water*; a disease so called proceeding from the Bite of a mad Dog. † *Hydrophobia*, or are bit by a mad Dog. Which they may easily bring about, if they feed only on young *Animal*, and moist and cool vegetable Food. But whenever I speak of vegetable Food, I mean that which is dressed by *Fire*.

§ 11. To the *Aged*, and those who are passing off the *Stage of Life*, I have only two Things to recommend. if they would make the last Hour as easy, indolent and free from Pain as may be. The first is, that they would avoid the Injuries of the Weather, as much as ever they can. The Blood of the *Aged* is ever, most certainly, poor and viscid. Their *Perspiration* little or none at all; and their concoctive Powers weak. And consequently, they must be subjected to, and suffer by the Weakest Injuries of the Weather. Therefore I advise such, to keep Home, provide warm Rooms and Beds, and good Fires, whenever the Sky lowers, Winds blow, or the Air is sharp. Such are not to expect to raise, improve, and exalt their Constitutions or Health. Freedom from Pain, to prevent the vital Flame's being extinguished by Accidents, and to have it burn as clear, and as long as Nature, at their Age

Age has designed it should, is all they ought to aim at. Exercise is only to purge off Superfluities. If these therefore, be careful not to exceed, they will want none, nor would it much contribute to their Ease. For in old Men the Bones petrify; the Cartilages and Tendons turn into Bones; and the Muscles and Nerves into Cartilages and Tendons. And all the Solids lose their Elasticity, and turn in a great Measure, into that Earth they are going to be dissolved into. So that Solids wanting Elasticity, Exercise can do but little to shake off the Load. It will therefore be enough for such, to air themselves when the Sun lights them, and the Summer Breezes can refresh them. Or, if they would lengthen out their Days, to remove to a warmer Climate, by which they may live as long as the Crow. The second Thing I would advise such, is, To lessen their Diet gradually, as they grow older, before Nature has forced this Diminution upon them. This is a powerful Mean to make their old Age green and indolent, and to preserve the Remains of their Senses to the very last. By this alone, Cornaro lengthned out his Days, and preserved his Senses, in a great Measure, intire to a Hundred Years. He gradually lessened his Diet so far, that as his Historian informs us, he came at last, to live on the Yolk of an Egg three Days. I will not take upon me to advise others. in what Measure, either of Time or Quantity of Food, they ought to diminish. But this, I think, they ought to consider, that since 'tis certain Aged Persons become Children, as to the Weakness of their Digestions, they ought to diminish, as Children increase in their Food, from weaker to weaker, and from less to less. For as their Solids are un-elastic, their concoctive Powers weak, their Perspiration little, and the Expences of Living, scarce any, their Repairs (not to overlay the Spark of Life remaining) ought to lessen proportionally. And 'tis to the Neglect of this, in aged Persons, that those Rheums, Catarrhs, Wind and Cholicks, Loss of Memory and Senses, those Aches and Pains, and all that dismal and black Train of Miseries, that wait on Long Life, is mostly owing. Which by a discreet and tim-

meous Lessening their Diet, might, in a great Measure, be prevented.

§. 12. There is no *Mistake* more fatal in the Cure of chronical Distempers, incident to the Weak and Tender, than the *vain and unjust* Expectation they entertain of a *sudden and quick* Cure, or even of a sensible Relief. This with their Inconstancy, and Impatience of being confined in their Appetites, makes them either throw off all Remedies and Restraints in Despair, and give themselves up to an *habitual* Indulgence in all those Things that brought on or exasperated a Distemper, or run about changing, from Doctor to Doctor, 'till they end with a *Quack*, or die under the hands of a *Mountebank*, and are *fool'd* out of their Lives and Money at once. It is surprizing that reasonable Men can imagine, that in any *small* Time, any possible Methods or Medicines should cure, or even sensibly relieve a Distemper, that perhaps was *brought with* them into the World, and *interwoven* with the Principals of their Being, or, at least, may have been *ten or twenty Years* a breeding, by *Excesses*, or an *indiscreet Regimen*. I know no fitter Similitude of the Case, than the annual *Income* of an Estate just sufficient to keep one in decent Necessaries, and due Plenty and Cleanness. If one that has such an Estate, run out every Year, for Ten or Twenty Years, and then set about to retrieve, before he be come to *starving* or a *Goal*, would we not count him mad, if he should imagine, by Retrenching, Management, or Saving, even joining to those *Day-labour*, that a *few* Months or Years would recover all, and bring his Estate to its first Condition. No! he must *labour*, *abstain* and *manage* for several Years; and the Time required, will be always in a Proportion compounded of the *Rate* of his former Expences, and his present Saving. That is, If his Expences were but *small*, and his Savings *great*, the Time will be the shorter, in respect of the Time he continued his overspending. If he gives over *Saving*, he must at last most certainly starve or go to *Goal*; and if he begins to save in due Time, he will certainly *retrieve* all; but the whole consists in *Labour* and

and Saving for a due Time. Excesses and undue Regimen, is Running out of one's Health; which, without a proper Remedy, as Labour and Abstinence, will necessarily bring a Man to Diseases or Death. And these must be continued a Time proportioned to the Greatness of the Excesses, with regard to the Labour and Abstinence. Most *chronical* Distempers have for their Parents, corrupted Fluids, and broken Solids, as has been shewn. A bad State of the *Stomach* and alimentary *Organs*, either beget these or accompany them. Suppose for Example, the Case be a *scorbutick* Habit, shewing it self with *Blotches* and a watry *Ichor*, or *Bumps*, with yellow or black Spots on the Skin, a thick, viscid; rheumatick Blood, an obstructed *Liver*, and a constant Overflowing of the *Gall*, Oppression of Spirits, want of Appetite and Digestion, and thereby a wasting Lassitude. Inquietude, &c. which I have often met with in your *Bon Vivants*, and your *Free-Livers*, who have been born healthy, vigorous and lively; I know no Way in Nature to relieve and effectually cure this Case, but by often-repeated, gentle Vomits and Stomach Purges, as the *Choler* (which certainly degenerates into *Flegm*, before the Cure be brought about; for *Flegm* is but *Choler* more diluted, or the grosser Part of the *Serum* only, as *Choler* is that of the whole arterial *Fluid*; and when *Choler* is come to *Flegm*, the Cure is half carried on, one Part of the *Fluids* being already purified, and the *Liver* free and open; as the *Choler*, I say,) and the *Flegm* rises and loads the alimentary Passages; *Bitters*, *Aromatics* and *Steel* varied and prescribed, according to the Strength of the Patient, and one Kind as another has lost its Virtue; *Chalybeat* and *Mineral Waters*, constant Labour and Exercise; a cool, light, spare Diet, and constant proper Regimen, long and obstinately persisted in. The Patient will often complain, What Vomits and Bitters, Galloping and Fasting for ever! Vomits only relieve for a few Days, but do not cure: We grow as bad as ever again, and in some Months Perseverance, find ourselves just where we began. New Doctors must be had, and they must either be cashier'd if they pursue the same Intentions (which, if they be honest Men, they must do) or else

else must write Things that can neither do Good nor Harm, or those which will actually hurt, for their Fees, (for there is no *Medium*) 'till the miserable Person has run through the whole Faculty, and at last got into the *Charlatan* Tribe. It is certain, that when Nature has begun to throw the gross and viscid Parts of the Juices on those loose and spongy Glands, it will continue so to do, 'till he has deslegmated the whole Mass: And every new *Vomit* will make Room for another; and there is no other Remedy as long as there is any viscid Humour remaining, nor can the Decline of the Disease be discovered so certainly by any Thing, as by the Lessening the Quantity excerned, and the Lengthening of the Intervals: As in a Vessel of Oil and Water incorporated, a surer Way to separate the Oil from the Water is, to skim it off as it comes to the Top. Now as long as there is any Oil remaining, it will swim, if you but give it Time to extricate itself from the Embraces of the Water, and then you may separate the viscid Mixture entirely. No great Purpose in Life was ever brought about, but by Time and Patience, and by constantly pursuing the most natural and best approved Means that lead towards that End. Nature works not by sudden Jumps and Starts, but goes on steadily, *fortement & doucement*, and 'tis Nature that is the true Physician; Art only removes Obstacles, checks Violences, and gently solicites Nature the Way she tends. This Requires Time and Patience. *Tempus Edax Rerum*. It most certainly consumes *chronical* Diseases, if not fuelled and fed; *Nothing else* can.

§. 13. In fine, Providence has been kind and gracious to us beyond all Expression, in furnishing us with a certain Relief if not a Remedy, even to our most intense Pains and extreme Miseries. When our Patience can hold out no longer, and our Pains are at last come to be insupportable, we have always ready at Hand a Medicine, which is not only a present Relief, but, I may say, a standing and constant Miracle. Those only who have wanted it most, and have felt its friendly and kind Help in their Tortures, can best tell its wonderful Effects, and

and the great Goodness of Him who has bestowed it on us. I mean *Opium* and 'tis Solution *Laudanum*, which when properly prescribed, and prudently managed, is a most certain and sudden Relief in all exquisite and intense Pain. The Manner of its Operation may be gathered, from the Observations, I have made in the preceding Treatise. Pain constricts, crisps up, shortens and contracts animal Fibres. It acts like a Wedge in tearing, rending and dividing these small Filaments; it does to them in a living Body, what the Points of Salts do to all animal Substances, which are to be preserved for Food, viz. hardens, stiffens and contracts them. The Fibres of live Animals being contractile, tonick and springy, when a hard pointed Body enters them (which is the Case in all Bodily Pain) the Parts by their contractile Nature, fly from, recede, and shun, as much as possibly they can, the wounding Instrument. This appears in the large Gash of a Wound, made across the Fibres of a Muscle; in the continual Bending towards the other Side, when any Part of one is painted; in the *Cramps* and *Convulsions*, nay, and sometimes *Fevers*, produced by intense, acute Pain. Pleasure on the contrary, relaxes the Fibres by a gentle, soft, and bland, or (as the *Mathematicians* speak) a commensurate and harmonious Touch. It acts on the Fibres as two unison and concordant musical Instruments act on one another, and by stroaking, softening and smoothing, comes at last intirely to relax and unbend them. The Parts of the Fibres run after, follow and pursue, and at last break their Union in some Degree to reach such a demulcent Touch. Some Persons have had the Faculty to allay Pain, by gently smoothing the the afflicted Part with their Hands; which in some Measure was true of the *Touching Doctor*. Soft Oils, and emolient Herbs, with gentle Warmth, by relaxing the crisped Fibers, will allay Pain. Soft Beds and Cloaths, and tepid Baths will relax and weaken the whole Habit. Now since Pain so certainly crisps up, constricts and contracts animal Fibres, and since *Opiates* infallibly, if duly dosed, relieve and ease Pain, I can see no possible Way it can effect that, but by relaxing and unbending these Fibres,

bres as much, or near as much, as Pain contracts and draws them up. And that this is the real Fact, we may observe from many Effects of *Opiates*. 1. Nothing is so powerful, or so certain a *Diaphoretick* as an *Opiate*. Nothing causes such plentiful Sweating, especially if joyned with *Volatiles*, and promoted with plentiful drinking small, warm Liquors. This it can do only by relaxing the Fibres of the Skin and Perspiratory Glands. 2. Nothing so much *palls* the *Appetite*, and *weakens* the first *Digestions*, as the frequent Use of *Opiates*; insomuch, that most People, after a liberal Dose of them, seldom fail to reach, and never care for Food for a considerable Time after, till their Effects are wrought off; which are the constant Symptoms of a *relaxed Stomach and Guts*. 3. Nothing so much promotes the *Eruption* of the Small-Pox and Measles, the *Expulsion* of the Stone and *Fœtus*, the Monthly, and After-Birth *Purifications* of the Sex, as *Opiates*; insomuch, that in difficult Births, they are now the only Recourse of the Midwife Physicians; and, when joyned with *Volatiles*, will bring on the most powerful and *vigorous* Throws, in the most powerful and *languishing* Constitutions. These Effects they can produce only by *relaxing* those Fibres Pain has *contracted* and render'd un-elastic in some Measure. 4. Nothing quiets and stops *Cramps*, *Convulsions* and *Hysterick Fits*, so suddenly and certainly as *Opiates* do. And every one knows these arise from violent Contractions, and crisping up of the muscular Fibres. All these, and many more such Effects, *Opiates* produce, by *unbending*, *loosening*, and *relaxing* those Fibres violent and acute Pain had constricted and *contracted*, and by giving a Respite and Reprieve from its Tortures, and thereby allowing Nature (the only true Physician) to go undisturbed about its own Work. The Way it stops Purging, and cures a *Diarrhœa*, I take to be by carrying off the sharp and watry Humours in the Bowels by *Perspiration*, which *Opium* exceedingly promotes, by quieting those *Spasms* and *Convulsions*, and allaying those *Stimulations* excited by Purging; and settling and calming the Violence of the *Peristaltick* Motion of the Guts, which *hurries off* their Contents. I will not take
upon

upon me here, to determine the proper Case for *Opiates*, or their *Doses*. That is the Business of the Physician. But in general, I may say, wherever Pain is acute, intollerable and past enduring, where it may endanger *Convulsions*, a *Fever* or *Inflammation*; after premising the proper universal *Evacuations* (such as *Bleeding*, *Blistering*, *Cupping*, *Purging* or *Glistering*, as the Case requires, or will bear) *Opiates* then will most certainly relieve, and may be safely administred. If the Case is attended with *Vomiting*, solid *Opium* will do best; because it will be in a smaller Volume, and will not be so readily rejected. If speedy Relief be required where there is no *Vomiting*, then *Laudanum* will disperse soonest through the Habit, because Liquid, and joined with a spirituous Vehicle will soonest effect the Design, raise the oppressed Spirits more, and penetrate deeper and quicker. In common Cases, a vinous Vehicle will be sufficient, because *Opium* is best dissolved in *Wine*, to make *Laudanum*. There are four Cases, in which 'tis absolutely and eminently necessary; the *Cholick*, the *Stone*, the hard *Labours*, *After-birth*, and Monthly sluggish *Purifications* of the Sex, especially if attended with violent Pain, as is common in such Cases; and in the *Gout* and *Rheumatism*. In the first, it ought always to be given with some Stomach Purge, as *Elixir Salutis*, or *Tincture* of *Hiera Picra*, with *Syrup* of *Buckthorn*, and in those of more tender Bowels, with *Tincture* of *Rhubarb*; especially if the *Cholick* is in the lower Bowels, and attended with no *Vomiting*; in which Case an artificial *Vomit* is to be premised, if Circumstances forbid it not. In the *Stone*, it ought to be given with *Oil* of sweet *Almonds*, or in some soft *Emulsion*, to lubricate the Parts. In the two last Cases, it ought always to be given with proper *Volatiles*, *Antihystericks* and *Attenuants*. In violent and acute Pain, the first Dose ought to be large, at least from thirty to forty five Drops of liquid *Laudanum*, or its Equivalent in *Opium*, from two Grains and a Half, to three and a half; and afterwards to be increased by fifteen Drops of Liquid, or half a Grain of Solid *Laudanum* every half Hour 'till the Pain begin to remit; and then an entire Stop is to be put

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to its Administration. And thus the End will be obtained without any Fear of *over-doseing*. And the Truth is, there is less Hazard of that, than Persons are aware. For those who die of an Over-dose of *Laudanum* in the Opinion of the World, would have lived few Days without it. For there are those that by Custom, have brought themselves, to two Drams of Solid, that is near six Ounces of liquid *Laudanum* a Day. And I know a Gentleman who took near three Ounces at once, instead of *Elixir Salutis*, and had never taken any in his Life before; who (though it extremely weaken'd his Stomach for some Time, and that he dosed almost a Month under it) yet did well, and for ought I know, is alive still, though it be many Years since. If the preceding Dose be rejected by *Vomiting*, about a third Part may be supposed to stay; and then the subsequent Doses may be proportioned accordingly. The Difference of Constitutions will make no great Alteration here, since very weak Persons seldom suffer very violent Pain, which is the only Case I am here considering.

§. 14. To draw towards a Conclusion. The grand Secret and sole Mean of Long Life, is to keep the Blood and Juices in a due State of Thinness and *Fluidity*, whereby they may be able to make those Rounds and Circulations through the animal Fibres, wherein Life and Health consist, with the fewest Rubs and least Resistance that may be. In spite of all we can do, Time and Age will fix and stiffen our Solids. Our original Frame and Make renders this unavoidable and necessary. As in the greater World, †the Quantity of the Fluids is daily lessening and decreasing; so in our lesser World after a limited Time, the Appetite and Concoctions failing, the Fluids are lessened and spent on the continual Repairs of the Solids, and thereby lose their Nature, and become firm and hard. For by insinuating themselves into all the Pores of the Solids, and the Interstices of their Parts, and straitening and damming up the small Vessels which carry in Nourishment to the internal Substance

†See Sir Isaac
Newton's
Princip.

stance of the Solids, and so depriving them of their Moisture and lubricating Juices, these Solids come at last to harden, stiffen, and fix, and thereby lose their Elasticity and Springiness. Here the Process is Mechanical and necessary. Age and Time, by weakning the Concoctions, impairing the natural Heat, which consists in a brisk and extended Circulation of the Juices, by the turning those Juices into solid Substances, and thereby fixing and hardning these Solids, and depriving them of their due Elasticity, the Fluids circulate with less Velocity and Force, and seldom reach the Extremities and smallest Vessels, but pass through the more patent and larger Vessels, by their biggest lateral Branches. And if with all these unavoidable and irremediable Circumstances, both the nutritious and serous Part of the Blood, and and the globular, become viscid, thick and glewy, the Circulation must stop at last, and come to an End. Now 'tis certainly in a great Measure in our Power to maintain the Juices in a due State of Fluidity and Thinness, and to render them such if they are not corrupted to an extreme Degree, so that the remaining Part of Life be not too short for such a tedious Work. We certainly may dilute and thin any Fluid, that has an Inlet and Outlet. And the more fluid a circulating Liquor is, that is, the smaller and finer its Parts are, the less force it will require to set it a going, and to continue its Motion. And in animal Bodies, the thinner and more fluid the Juices are, they will not only circulate by the less Force, and with less Resistance (*i. e.* Pain) but also, they will preserve by their Circulation, the Solids the longer from stiffening and hardning. There is not a more mischievous, nor greater Mistake than the common one, that *thin* Blood is *poor* Blood, which the Vulgar and Herd of Mankind are as terribly affrighted for, as outward Poverty and Want. For on the contrary, the thinnest and most fluid Blood is the richest, that is, the best Blood (if *rich* and *good* mean the same Thing). For in *Hydropical*, *Anasarcous*, *Cachectick*, and *Scorbutick* Persons, both the serous and globular Part of the Blood is thick, glewy and acrimonious, so that it can neither get thro' the small

Vessels, nor can it be long contained in them, but corrodes and frets them, and so falls (at least the thinnest Part of it) into the Cavities, and begets a *Dropfy*; or stops in and obstructs these small Vessels, and so becomes an *Anasarca* or *Scurvy*. In all which Cases, the serous Part is overloaded with urinous Salts, and becomes a perfect *Lixivium*; so that by its Grossness it cannot run into Globules, to facilitate the Circulation through the *Capillaries* (for these small elastick Globules, by turning oval or oblong, wonderfully facilitate the Circulation of the Juices through the small Passages) and the red or globular Part becomes a mere Cake of *Glue*; and thus the Quantity of Serum is encreased, and the Quantity of the globular Part gradually lessened. And in this Sense (of a greater Proportion of Serum) this State of the Blood may be called *thin*; but it can in no Sense be called *good* Blood. The thinnest and most fluid Blood is ever to be looked upon as the best Blood, as consisting of finest and smallest Parts, which most readily runs into red Globules, and most easily circulates through the *capillary* Vessels, which is the most solid Foundation of Good Health and Long Life. Now as Nothing but indulging in strong high Foods, which the concoctive Powers cannot break and divide into Parts small enough to run into red Globules, or circulate through the small Vessels, but overstock them with urinous Salts, which run into Clusters, and first obstruct, and afterwards break these small Vessels, and in wallowing in strong Liquors, which parboil and eat out the tender and delicate Fibres of the Solids; I say, as Nothing but such an Indulgence, and such Excesses, long continued and obstinately persisted in, can beget such a State of the Fluids and Solids, and so bring on a *Cachexy*, which may end in a *Dropfy*, or some other fatal *chronical* Distemper, according to the Habits and particular Make and Constitution of the Party (for no Person that lived low and meagre, and drank only small and thin Liquors, ever became *Hydropical*, if his Solids were originally firm, and his Fluids not tainted with some hereditary Sharpness) so I know Nothing under the Sun, that can solidly and fully effectuate the contrary State
of

of the Blood and Juices, to render them thin, sweet, and in a constant flowing Condition, but taking the contrary Measures, and keeping to a strict Regimen of a thin, fluid, spare and lean Diet.

We have no possible Way to attenuate, clean and dilute a *Vessel* full of *gross, glewy*, and foul Mixtures, that has only a small Inlet and Outlet, but by pouring into it a thin, clear, insipid *Fluid*, and by shaking it often and much. It is much the same with an animal Body. No *voluptuous* or *lazy* Person, unless he has had an original Constitution of *Brass*, was ever a *long Liver*. And even then as his Life has been more *Misery* and *Pain*, than ever a *sober Gally Slave* endur'd, his End, and the latter Part of his Days has been *Rack* and *Torture*, *Horror* and *Despair*. And though he has not had the Hope nor *Consolation* of a Martyr, yet his *Sufferings* has been far more *exquisite* and *extreme*. All those who have lived *long* and without much Pain, have lived *abstemiously*, *poor* and *meagre*. *Cornaro* prolonged his Life, and preserved his Senses, by almost *Starving* in his latter Days; and some others have done the like. They have indeed thereby, in some measure, weakned their natural *Strength*, and qualified the Fire and Flux of their *Spirits*: But they have preserved their *Senses*, weakned their *Pains*, *prolonged* their Days, and procured themselves a gentle and quiet Passage into another State. Gentle domestick *Purges* frequently repeated, due Exercise, and the Use of the other Means prescribed in the foregoing Treatise, will mightily contribute towards this End. But the *Ground work* must be laid, carried on, and finished in *Abstemiousness*; and tho' not in absolute *Fasting* (for that is no ways required, and would be prejudicial,) yet in a thin, poor, low, light and meagre Diet. All the rest will be insufficient without this. And this alone, without these, will suffice to carry on Life, as long as by its natural Frame it was made to last, and will make the Passage easy and calm, as a Taper goes out for want of Fuel.

MISCELLANY Rules of HEALTH
and Long LIFE.

I. **C**HRONICAL Diseases last long, wear out the Constitution leisurely, and are accompanied with slow Pulse; whereas acute ones soon terminate either in Death or Recovery, and are joined with a quick Pulse.

2. The *Scurvy* is the Root of most chronical Diseases of the *British* Nation; and is a necessary Consequence of their Way of living almost wholly on animal Food, and drinking so much strong Liquors.

3. *Soft, thin, small, short, fair Hair, slender Muscles and Bones; soft Flesh, a white, fair, blanch'd or ashen-coloured Complexion; a fair corpulent, flegmatick, cold Constitution; Chilliness, especially in the Feet; a Readiness to catch Colds; and being subject to immoderate Evacuations, of any kind, are certain Signs of loose, flabby, or relaxed Nerves.*

4. *Women of weak Nerves are very subject to Miscarriages. Their Danger is increased by high Living, and indiscreet Bleeding. The only Remedy for them, is drinking Bristol Water and red Wine, with a low and light Diet, going abroad to get Air, and using Astringent Plaisters, and other proper Medicines to corroborate their Bowels.*

5. The *Weak and Sickly* (as their Concoctive Powers fail in Winter, and recover in Summer) should carefully proportion the Quantity and Quality of their Food, to the Strength of them in several Seasons.

6. The fewer *Sloaths* one uses, the hardier he will be. Flannel and great Loads of Cloaths by Day or Night, relax the Fibres, and promote only Sweating, instead of the natural and beneficial Perspiration.

7. The *Weak, Sedentary and Studious*, should frequently Shave their Head and Face, wash and scrape their Feet, and pare the Nails of their Toes.

8. People

8. People that *read* and *write* much, ought to do them standing, or in as erect a Posture as they can. And those who can go about any Part of their Studies walking, should do it.

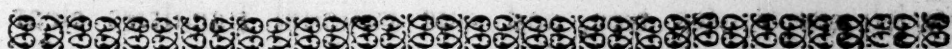
9. The *Fat*, *unweildy* and *over grown*, ought to avoid all manner of Drink, strong and small, and even Water itself, as much as possible. And if their Food be *Vegetables* and young *Animals*, they will have little Occasion for any Liquor.

10. The *Aged* should (1) carefully guard against all the Injuries of the Weather; and (2) lessen the Quantity, and lower the Quality of their Food gradually, as they grow older; even before a manifest Decay of Appetite force them to it.

11. As *chronical* Diseases are not brought on all at once; so they cannot be quickly removed. A gradual Corruption, must be gradually remedied. 'Tis contrary to the Nature of *chronical* Diseases to be quickly cured.

12. In all acute and *vehement* Pain, *Opium* is the sovereign Relief, particularly in the *Cholick*, *Stone*, *Gout*, *Rheumatism*, and hard Labour of Women. It operates by relaxing and unbending the Fibres, overstretched and crisped up by Pain.

13. The *great secret* of *Health* and *Long Life*, lies in keeping the Blood (and consequently the other Juices of the Body) in a due Degree of Fluidity.



CONCLUSION.

TO *Conclude*, without taking the Benefit of *Revelation*, which, in a Sense relating even to our mortal Bodies, has brought Life and Immortality to Light; if but the Precepts of the Pagan Philosophers were observed,

——— *Servare Modum, Finemque tueri,*
Naturamque sequi, ———

If

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If Men would but observe the golden Mean in all their Passions, Appetites and Desires; if in all their Thoughts, Words, and Actions, they would but mind, I will not say the End of their Being and Existence here, but the End to which their Thoughts, Words and Actions naturally tended in their last Resort; And, *Lastly*, If in the Gratifications of their Appetites, Passions and Desires, they follow'd the uncorrupted Dictates of Nature, and neither spurred her on beyond her Craving, nor too violently restrained her in her innocent Bias; they would enjoy a greater Measure of Health than they do; have their Sensations more delicate, and their Pleasures more exquisite; live with less Pain, and die with less Horror. For had it not been for the Lewdness, Luxury and intemperate Gratifications of the Passions and Appetites, which first ruined and spoiled the Constitutions of the Fathers, whereby they could communicate only a diseased, crasy untunable Carcass to their Sons, so that with the World's Decay, vicious Souls and putrified Bodies, have in this our Age, arrived to their highest and most exalted Degrees; I say, Had it not been for these Evils, there never had happened so much Sickness, Pain and Misery, so unhappy Lives, and such wretched Ends, as we now behold among Men. But even in this our lapsed Estate and Condition, had the Dictates of Nature and Reason, not to say Religion, been followed; we might have passed our Days in Indolence (at least from *chronical* Distempers) if not innocent Pleasures arrived at a good old Age, with our Senses free, and our rational Faculties clear and at last departed in Peace, as a Lamp goes out for Want of Oil. And let the Gentlemen of *Wit* and *Fire*, of *Banter* and *Sneer*, hug themselves ever so much in their boasted Tranquility and Security, gratify their Passions, Appetites and Humours to the Full, and despise Futurity, and Whining; I dare promise when the *Farce* is ended, and the last Minutes are drawing on, they would prefer a Life thus led; and an End so calm, to all the Pleasures of Lewdness and Sensuality, and the Bounces of a false and ignorant Security.



F I N I S.

If Men would but observe the golden Mean in all their
Reasons, Appetites, and Passions, in all their Thoughts,
Words, and Actions, they would not mind, I will not say
the End of their Lives, but they would be happy in the
middle of their Lives, and would not be weary of it.
And, as it is in the Order
of their Appetites, Passions, and Desires, they would
follow the golden Mean, and not be carried to the
Excess of either. For, as it is in the Order of their
Thoughts, they would not be carried to the Excess of
either in their Thoughts, but they would be happy in the
middle of their Thoughts, and would not be weary of it.
In Matters of Health, they would not be carried to the
Excess of either, but they would be happy in the
middle of their Health, and would not be weary of it.
One more delicate, and more delicate, more exquisite
live with less Pain, and the worst of all. For, as it is
not been for the Excess of either, and in temperate
Gratifications of the Passions and Appetites, which are
ruined and spoiled the Constitution of the Body, which
they could communicate only a delicate, clear, and
solid, as it is to their Souls, to that with the World's De-
light, which is not their highest, and most exalted Degree; I
say, that it is not better for these Ends, therefore had hap-
pened in such sickness, Pain, and Miserie, to nobody
Lucky, and such wretched Ends, as we now behold a
more happy. For, as it is in the Order of Effort and Con-
dition, in the Order of Nature and Reason, not to
lay Reason, then followed; we might have passed
our Lives in Pleasure (as I said from the very Differ-
ence of the two, the Pleasures of the one are good old Age,
with our senses free, and our rational Faculties clear
and at last, at last, at last, as a Lamp goes out for
Want of Oil. And for the Gentleness of the Mind and Body,
of the Mind and Body, and themselves even to much in their
positive, I say, that they would be happy in the middle of
Appetites and Passions, to the Full, and despite Futility,
and Wasting; I say, that they would be happy when the Force is ended,
and the last Minutes are drawing out, they would prefer a
Life thus led, and an End to calm, to all the Pleasures of
the World, and the Pleasures of a false and
vain Society.